Case Based Learning: Preparing Adult Learners to Become Thoughtful Leaders

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Abstract:
The desired outcome of case based learning is to engage adult learners in applying research based leadership theories to real-life decision making by modeling the critical importance of individual thought, peer discussions, and knowledge construction. Implementation of case based learning in an adult learning environment bridges the gap for leaders between theoretical knowledge and real-life work situations.

Case based is supported by theorists in adult learning, constructivism, and storytelling / narrative. This instructional methodology encourages adult learners to read, analyze, discuss, confer, and arrive at decisions and chosen courses of action in response to the cases presented. Stein (2006) wrote, “...as much as Ed Schools claim to focus on teaching and learning...the more a program...reflects the actual work of school leadership, the more effective its graduates will be at leading instructional improvement.” (p. 523).

Mauffette-Leenders, Erskine, and Leenders (2005), developed a process in which case based learning is predicated upon expertly trained instructors who write cases and evaluate students’ responses to the cases. Students individually read assigned cases and look for underlying theories and skills that are integrated within cases. Next, students create small collegial groups of three to five students to discuss their individually prepared thoughts on the case. Finally, during whole class discussion, the instructor facilitates learning by asking probing and guiding questions, inserting critical theory and information, monitoring student participation, and challenging the class to synthesize their learning to arrive at a thoughtful decision.

Keywords:
Case based learning; adult learning; leaders; instructional method

McCarthy (1999) reported that while changes in instructional methodology at the university level are slow in coming, they could indeed be observed and replicated. Changes observed in McCarthy’s work included implementation of learning cohorts, case based learning instructional methodology, problem based instruction, and commitment toward instructional change. Critically important to changing and enhancing instructional methodology in higher education is the commitment of the instructor toward instructional change in order to prepare adult learners to become thoughtful leaders. The instructor’s dual focus on educational theories that are the underpinnings of each course and the application of those theories to real-life work experiences can effectively be addressed through the use of narrative cases and case based learning and in helping students practice their skills and expertise in a carefully guided learning experience. Doctoral students are required to apply what they are learning to their real-world work experiences. Case based learning experiences are designed to support students as they engage in the process of reading, preparing, discussing, and listening to multiple perspectives about a particular challenge that may be encountered in real-life work and leadership. Case based learning experiences in higher education provide learners an opportunity to demonstrate their mastery of the germinal and current literature in a particular field, integrate their learning through interaction with a narrative (story) that represents real-life work challenges, and evaluate multiple solutions to problems.

Educational leaders face situations every day that require them to use a wide range of skills and particular expertise in which they have been trained. These situations could be as simple as implementing a minor change in the daily school schedule or they could be as complex as the disaggregation of data, data analysis, and interpretation of student achievement data as related to particular racial and cultural groups. Coles (2002) wrote that (educational leaders) must “engage in complex and unpredictable tasks on society’s behalf...” Stein (2006) further wrote, “…as much as Ed Schools claim to focus on teaching and learning, they typically pay scant attention to their own faculties’ pedagogical practices…The more a program...reflects the actual work of school leadership, the more effective its graduates will be at leading instructional improvement.” (p. 523).

Emerging educational leaders must be prepared to lead culturally and racially diverse organizations; must be focused on preparing students and staff to be effective and efficient in a rapidly moving global community that thrives on information delivered immediately; must know how to make decisions about curriculum, finance, school operations, and personnel in a time of quickly diminishing resources; and must learn to see the world in which they live and work, as interconnected living systems. “It is clear that as the education system works its way through this period of radical change, leaders are needed who are capable of dealing with
Innovative and effective learning experiences in higher education help create transformational leaders who are effectively prepared to take on the challenges of leadership inherent in public education today. These learning experiences require thoughtful revamping of instructional methodologies in higher education. Implementation of case based learning in higher education adult learning environments, whether as the asynchronous online classrooms or more traditional face-to-face classrooms, can help to bridge the gap between theoretical knowledge in educational leadership and the application of those theoretical bases to real-life work situations faced by educational leaders.

Overview of Case Based Learning
Case based learning applies theories and course specific content to simulations of real-life challenges. The use of case studies for teaching and learning can be found as early as in 1788 by the Medical Society of New Haven to advance the knowledge of medicine with its students. Case studies were introduced in 1871 to the Harvard Law School and remain in use today. Sperle (1933) used case based learning at Teachers College and that same year, graduated the first class of teachers and leaders who had studied using this methodology. The most widespread use of case based learning in the 1950s remained grounded within the first two years of medical schools across their curricula of physiology, pharmacology, and anatomy.

Case based learning also emerged from the instructional methodology of Problem Based Learning (PBL). Savery (2006) defined Problem Based Learning as “…an instructional (and curricular) learner centered approach that empowers learners to conduct research, integrate theory and practice, and apply knowledge and skills to develop a viable solution to a defined problem.” Medical schools in North America had begun using case based learning or PBL as an instructional method to enhance their students’ abilities to use their skills of hypothetical deductive reasoning and to integrate their knowledge across several content areas in order to formulate a patient diagnosis. Torp and Sage (2002) found that students who participated in case based learning experiences were more engaged in learning than in more traditional instructional methodologies.

Public schools, from elementary, middle and high schools, to colleges and universities, have adopted PBL methodology as they move from teacher centered to student centered learning. Savery (2006) wrote “PBL is used in multiple domains in medical education…and in content domains as diverse as MBA programs (Stinson & Milter, 1996); higher education (Bridges and Hallinger, 1996); chemical engineering (Woods, 1994); economics (Gijsselaers, 1996); and pre-service teacher education (Hmelo-Silver, 2004)”.

Theoretical Foundations
The theoretical foundations of adult learning (andragogy) and constructivism are essential underpinnings for development of the skills and expertise of future educational leaders. Savery, (2006) quoted Lebow (1993) “…traditional educational values of replicability, reliability, communication, and control (Heinrich, 1984, p. 5) contrast sharply with the seven primary constructivist values of collaboration, personal autonomy, generativity, reflectivity, active engagement, personal relevance, and pluralism.” Adult learning and constructivist theory intersect in a learning environment that is focused on student construction of meaning rather than on the transmission of knowledge from the instructor to the students. Adult learners who are invested and engaged in learning in “…authentic learning environments [in which] the cognitive demands, i.e. the thinking required, [is] consistent with the cognitive demands in the environment for which we are preparing the learner” (Honebein et.al, 1993) are more skillfully prepared to lead through similar situations in real-life experiences.

Andragogy
Andragogy, as defined by Knowles et. al. (2005), is the art and science of helping adults learn. The seminal work of Knowles et.al (2005) defined andragogy as a set of special learning needs held by adult learners and further clarified those needs and assumptions into six principles that are common to adult learners. Knowles et.al (2005) found that adults need to know why they are learning something before actual learning begins. Second, adult learners believe that they are responsible for their own lives and for their own learning. Third, the integration of prior lived experiences of adult learners is critically important to their new learning experiences. Fourth, Knowles et.al (2005) found that the readiness of adult learners to learn is generated
when the adult learner has a need to learn something new and is most effective in orienting and applying their new learning toward actual personal or work situations. The fifth assumption of adult learners is their desires to problem solve, that is, to have the chance to apply their new learning to a problem that they are attempting to resolve. Finally, the sixth of Knowles’ principles of adult learning is the critical nature of their motivation, whether internal or external, for learning new ideas that can actually help them in real-life.

Constructivism

Constructivist and adult learners, as discussed by Huang (2002) echoed the findings of germinal constructivists including Dewey (1916), Vygotsky (1978), and Bruner (1996). These theorists believed that knowledge was constructed through social interactions with others. Dewey (1916) believed that the main function of constructivist learning was to help improve the learner’s reasoning process, in other words, to provide learning experiences that helped the learner to use deductive and inductive reasoning to make meaning. Constructivists such as Dewey believed that constructivism enhanced the learner’s ability to use knowledge to solve problems through discovery. Dewey additionally considered the instructor (teacher) to be a facilitator, rather than a director, of learning for students. Petraglia (1998, p. 53) took this idea further and suggested that “instructors should make the attempt to make learning materials and environments correspond to the real world prior to the learner’s interaction [in the online learning environment] with them.”

Vygotsky (1978) stressed the importance of the interaction between the content, the learner, and the learning environment. He discussed the critical role that other students and the instructor played on the student’s ability to learn in a constructivist way. Vygotsky’s work on the zone of proximal development (ZPD) served as the basis for study of the field of shared problem solving and decision-making, both essential elements of case based learning. The zone of proximal development (ZPD) has been defined as "the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance, or in collaboration with more capable peers" (Vygotsky, 1978, p. 86). Case based learning is an ideal method for helping students develop their problem solving skills under the guidance and questioning of a skilled instructor and his/her peers in higher education.

Jonassen, as cited in Huang (2002, p. 30) found “Technologies [such as online learning] are cognitive tools and help learners to elaborate on what they are thinking and to engage in meaningful learning.” Further, Jonassen went on to explain “learners use technologies as intellectual partners in order to articulate what they know, reflect on what they have learned, support the internal negotiation of meaning making, construct personal representations of meaning, and support intentional, mindful thinking.” Jonassen and Huang both further the use of constructivism as a theoretical base for the use of case based learning as an instructional methodology in the virtual or online learning environment.

Huang (2002) and others have cautioned that there are several issues to be addressed regarding the constructivist paradigm in online learning. Huang referred to the nature of online learning itself being socially isolating. Constructivist online instructors are advised to create learning situations that reflect a variety of opportunities that require student-to-student interaction as well as student to instructor interaction. Maufette-Leenders, Erskine, and Leenders (2005) model of case based learning can be applied to this issue in that the instructor facilitates individual, small group, and large group learning in the case based classroom. Requirements, such as are in place at the University of Phoenix, for student attendance in each of these types of interactions can contradict the potential challenge with social isolation.

Lundin (1998) and Westera (1999), as cited in Huang (2002) suggested that the learner bears responsibility for ensuring the quality of his/her own interactions with case based methodology in the online learning environment. The Individual Preparation phase and the Small Group phase of learning with cases will more than likely, occur in an asynchronous way without the immediate input of the instructor. It is therefore up to the students to ask follow up questions for areas that are not completely understood, to pursue individual meetings with the instructor, and to continually strive for personal excellence through the case based learning process.

A third issue inherent in using a constructivist approach to learning in a higher education programs is the critical attention to detail in the preparation of each case and to the students that must reside with the
instructor. The role of the instructor in the development of each case, in the preparation of Teaching Notes, in the preparation of “Back Pocket” questions, in monitoring student participation (Maufette-Leenders, Erskine, and Leenders, 2005), and in ensuring that the theoretical and content knowledge are integral to the case, requires the instructor to move back and forth between the roles of facilitator, guide, consultant, expert, and coach.

A fourth issue to address in the constructivist paradigm of case based learning is the very nature of self-directed learning. Knowles et al. (2005) emphasized that the journey of learning to learn was the essential path of constructivism. The ability of the adult learner to explore, to experience, to ponder, and to discuss theory and content with other adult learners and with the instructor is a foundation of helping adult learners use case based learning to practice potentially challenging situations in the real-life work in which the learners engage. Thoughtful leaders are those who are prepared to think, to integrate learning across various content areas, to engage others in conversations prior to enacting a solution, are leaders who are more able to thrive in complexity than their peers from traditional learning environments.

**Narrative/Storytelling**

A third theoretical foundation underlying the use of case based learning in higher education comes from the literature on narrative (storytelling) and its connectedness to human ability to more deeply understand organizations. Fisher (1987) found that organizational narrative or stories often provide the purposes and reasons for various events that once understood, help the learner to better understand the organization. Fisher wrote, “the world as we know it is a set of stories that must be chosen among in order for us to live life in a process of continual re-creation” (p. 87). Fisher further described storytelling as a basic form of narrative in which human beings share their values and reasons for making decisions.

Bruner (1986) wrote that while narrative had traditionally been viewed as an unacceptable form of logic, its credibility lies in the fact that “plain folks” (Lave, 1988) view the facts in stories as authentic and reliable. Adult learners strive to find meaning in their own lived experiences as applied to their new knowledge, therefore, their own stories have meaning and represent valid and reliable experiences through which they can process and integrate new learning. Bruner (1990) found that previously demanded rigorous and scientific expository writing had begun to include narratives that helped students construct and negotiate meaning in their attempts to become thoughtful problem solvers.

Jonassen and Hernandez-Serrano (2002) found that:

> The skills and techniques of traditional expertise, particularly as they are being taught in schools, do not match the complexity found in the fields of medicine, management, engineering, and many other professions. Novices in school(s) are trained only to work on problems that are, by nature, decontextualized and well structure, while problems in everyday and professional contexts are complex and ill structured…Given this mismatch between the kinds of problem solving being learned in formal settings [higher education], ill—structured problems do not have single solutions, are open ended, are composed of many sub problems, frequently have many possible solution paths, and possess no clear beginning or end…” (Jonassen, 1997; Kolodner, Hmelo & Narayanan, 1996; Sinnott, 1989).

Schön (1993) recommended that narratives, such as those used in case based learning experiences, “drawn from real world business contexts in order to help students develop the generic problem solving skills essential to effective management (p. 30) be used in preparing adult learners to become thoughtful leaders. In this way, adult learners could reflect upon stories that may be similar to those that they have or will experience in leadership roles and could provide them with an experience similar to those used in medical schools, such as internships and residencies, to bridge the gap between what they are learning, what they already know, and what possibilities exist for problem resolution. Jonassen and Hernandez-Serrano (2002) wrote that the memory structures that are formed as a result of using case based learning methods could be the same skills that adult learners use when they are in similar situations in their real-life work as leaders.

**Case Based Learning**

Case based learning (case study instructional methods) provides adult learners with unique opportunities to carefully examine case studies that are similar to what educational leaders may experience in their real-life work settings. The cases used in case based learning can, according to Jonassen and Hernandez-Serrano
(2002) be used in at least three ways. First, the cases constructed should include the concepts, theories, and content covered within a particular learning situation (course). Second, the cases used should reflect a specific problem that must be solved by students. The problem to be solved must be grounded in the theory and content of the course and must be addressed by students individually before they work with other students to hear alternate solutions and ideas. Third, the use of case-based learning must address how adult learners integrate new knowledge most effectively. For instance, students must be prepared to examine their own lived experiences to mine pieces of those experiences that could help them create a solution to the stated problem of the case. Students must also have either internal or external motivation to find solutions to the case presented. The students’ motivations and desires to learn should be addressed in the writing of the case to ensure that the case is engaging, provocative, and open to multiple solutions.

Mauffette-Leenders, Erskine, and Leenders (2005), developed case-based learning that helps students examine scenarios through three different phases. These phases are Individual Preparation, Small Group Discussion, and Large Group discussions. Each phase of this model integrates concepts grounded in the three theoretical foundations previously reviewed: adult learning, constructivism, and narrative.

**Individual Preparation phase.**

Case-based learning begins with the Individual Preparation Phase. Students are given thirty to 120 minutes, based upon the complexity of the case, to read the case, to prepare their own notes on the case, and to find the interconnectedness between the case presented and the theories and content studied previously in their course. This phase of learning provides a common set of facts from the case so that the next two phases of the case-based learning experience are grounded in shared, collective knowledge. Students are directed to approach the case from the mindset of the main character in the case that is in a leadership and decision-making position. Mauffette-Leenders, Erskine, & Leenders (2005) suggested that the framework below could be used to guide student learning during this phase.

**Figure 1**

**Individual preparation overview**

<table>
<thead>
<tr>
<th>Individual Preparation Overview</th>
<th>Reason</th>
</tr>
</thead>
<tbody>
<tr>
<td>Read paragraphs at beginning and end of case</td>
<td>Previews and summarizes case quickly</td>
</tr>
<tr>
<td>Identify the “who, when, what, and how’ facts from the case</td>
<td>Mines case for important details relevant for Small Group and Large Group Conversations</td>
</tr>
<tr>
<td>Review appropriate artifacts (previous readings, lectures, videos, etc.) that fit with case</td>
<td>Integrates theories and content central to course</td>
</tr>
<tr>
<td>Review case title and subheadings</td>
<td>Provides contextual information for organization of notes</td>
</tr>
<tr>
<td>Skim the case; reread for relevant details</td>
<td>Fills in facts of case</td>
</tr>
<tr>
<td>List relevant theories, content, materials, assignments relevant to case</td>
<td>Serves as Advanced Organizer for contributions to Small Group and Large Group conversations</td>
</tr>
</tbody>
</table>

(Mauffette-Leenders, Erskine, & Leenders, 2005)

Students complete the overview and then move into a more detailed and comprehensive study of the case, including relevant theories and course content that apply to the case, list of potential alternatives, decision making criteria, and finally, their chosen alternative and action plan that resolves the issues in the case.

**Figure 2**

**Individual preparation detailed**

<table>
<thead>
<tr>
<th>Define the central issue</th>
<th>Practice in synthesis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Analyze specific data from case</td>
<td>Disaggregates specific data from larger case</td>
</tr>
<tr>
<td>Produce list of alternative decisions and actions leader might take</td>
<td>Encourages creation of multiple solutions to case</td>
</tr>
<tr>
<td>Identify decision making criteria</td>
<td>Sets parameters for how final decision will be made</td>
</tr>
<tr>
<td>Analyze each alternative generated and select preferred alternative according to decision making</td>
<td>Compels detailed analysis of each alternative and reinforces reasons for selecting preferred</td>
</tr>
</tbody>
</table>
CASE BASED LEARNING: PREPARING ADULT LEARNERS TO BECOME THOUGHTFUL LEADERS

<table>
<thead>
<tr>
<th>criteria</th>
<th>alternative as solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Create action plan</td>
<td>Moves decision into action and implementation</td>
</tr>
</tbody>
</table>

**Small group discussion phase.**

During the next phase, Small Group Discussion, students form small groups of three to five colleagues to share their individually prepared notes on the cases. The Small Group Discussion Phase is planned for approximately 30-60 minutes. Students take turns sharing their own preparation notes from the Individual Preparation phase, listen to the multiple perspectives and diverse range of ideas that surface from their peers, and share their selected alternatives for action. The Small Group Discussion phase presents students with a safe learning environment in which to practice what they will share during the Large Group Discussion phase. Students, during this phase, are not asked to formulate solutions, rather, their intention should be drawn to deepening their own understanding of the facts presented in the case, the connections to theories and content from their course, and to listening with their own assumptions suspended. Students take notes on their peers sharing in order to refine, revise, and enhance their own thoughts about the case. Questions that might guide students’ conversations during the Small Group Discussion phase of case based learning might those listed below or other open ended questions designed to elicit honest and spirited conversation between and among peers.

**Figure 3**

**Small group discussion questions**

<table>
<thead>
<tr>
<th>Small group discussion questions</th>
<th>Reason</th>
</tr>
</thead>
<tbody>
<tr>
<td>Share the key facts that you identified in this case.</td>
<td>Identification of details from case</td>
</tr>
<tr>
<td>Describe any information that you did not find in the case that would have aided your understanding</td>
<td>Practice in gap analysis</td>
</tr>
<tr>
<td>Link the theories and concepts that have been covered in this course that apply to this case</td>
<td>Integrates theories and content central to course</td>
</tr>
<tr>
<td>Brainstorm a list of questions that you think might be asked during the Large Group Discussion phase</td>
<td>Identifies areas that might be critical to successful understanding of case</td>
</tr>
<tr>
<td>Summarize the critical points made by this case</td>
<td>Encourages skills of summarization and synthesis</td>
</tr>
</tbody>
</table>

(Maufette-Leenders, Erskine, & Leenders, 2005)

**Large group discussion phase.**

The final phase of case based learning, as described by Maufette-Leenders, Erskine, & Leenders (2005) is the Large Group Discussion phase. This phase is typically 45-60 minutes in length. Intentions of the Large Group Discussion phase are to allow participants to once again, deepen their thoughts about the case by hearing the thoughts of a larger group of colleagues; to confirm or test the applicability of the case and underlying theories to real-life work situations; to practice summarizing and synthesizing potential solutions to the case in a larger audience venue; and to reinforce the importance of collective wisdom in solution finding and decision making. During the whole class discussion phase, the instructor facilitates the class by asking guiding questions, monitoring student participation, inserting critical theory and information, and challenging the whole class to share their research and data based solutions and chosen courses of action for the problem posed by the case. Kolodner (1993) created a comprehensive list of questions that might be used by instructors during a Large Group Discussion phase. The questions both ensure student understanding of the relevant information from the theories, content, and case details, and also provide the instructor with a way to monitor that the case has comprehensive content and examples embedded within the narrative.

Tomey (2003) suggested the use of questions such as these as instructors facilitate the Large Group Discussion phase of case based learning.

**Figure 4**

**Large group discussion questions**

<table>
<thead>
<tr>
<th>Opening discussion</th>
<th>Share the major issues that emerged in this case.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Probing questions</td>
<td>I’m wondering what you think might happen as a</td>
</tr>
</tbody>
</table>
Carefully constructed cases based upon the content required in each course and tightly structured individual, small group, and whole class case based learning experiences, encourage doctoral students to read, analyze, discuss, confer, and arrive at decisions and chosen courses of action in response to the cases presented. Learning at profound and meaningful levels helps adult learners make connections between what they are learning and the real-life work experiences that they have had or that they may encounter in educational leadership. The desired outcome of case based learning is to engage adult learners in applying research based leadership theories to real-life decision making by modeling the critical importance of individual thought, peer interactions, and research based consensus decision making.

**Role of Instructor in Case Based Learning**

The role of the instructor in case based learning is one of the most critical factors in the effectiveness and success of a case based learning environment. The instructor must craft and ask questions that are scaffolded in complexity (Vygotsky, 1978) and that must increasingly stimulate higher order thinking from students. Using scaffolded questions during instruction must also reflect the instructor’s commitment to the value of both eliciting and listening to multiple perspectives on potential solutions to the problem posed by the case. Barrows (1992, p. 12) wrote “The ability of the [instructor] to use facilitory teaching skills during the small group learning process is the major determinant of the quality and the success of any educational method aimed at (1) developing students’ thinking or reasoning skills, and (2) and helping them to become more independent self-directed learners (learning to learn, learning management).”

Hmelo-Silver and Barrows (2006) wrote about the specific instructional strategies needed to teach in a problem-based classroom. Fosnot (1989) suggested that the instructor must focus inquiry on what is called the leading edge of student thinking, in other words, the instructor needs to craft and use questions that encourage students to be risk takers in their answers and to think in new ways. The instructor using case based learning instructional methodology must commit to teaching students how to think and how to become independent and collective learners. Both instructors and students continually reflect upon, not only the theories and content that are central to the case, but they continually reflect and discuss the very process that is used for learning.

Instructors of higher education, like their public school colleagues, must establish their online classrooms and

<table>
<thead>
<tr>
<th>Question Type</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hypothetical and predictive questions</td>
<td>Based on your learning, what is the most effective solution to the challenge posed in this case? I’m curious about what might happen if…</td>
</tr>
<tr>
<td>Analytical and evaluative questions</td>
<td>Let’s create a collective list of some options for resolution of this case. Have a look at the options that are listed and share your choice of the most effective option and why you think this to be so.</td>
</tr>
<tr>
<td>Connectedness questions</td>
<td>Help us understand how the theories that we have been learning in this course relate to the issues presented in this case. I’m wondering what other theories or real-life situations you have learned and experienced that you could apply to this case.</td>
</tr>
<tr>
<td>Summary questions</td>
<td>Summarize the major issues and potentially matching solutions that we found from studying this case. Draw parallels between our findings in this case and a real-life work experience that you may have encountered or could encounter at work.</td>
</tr>
</tbody>
</table>
face-to-face classrooms as environments in which it is safe to learn. Safety in learning means that the instructor “speaks” with students in an authentic and supportive voice, that students are encouraged to share their thoughts without fear of criticism, and that students are able to hear multiple perspectives on the same topic. Preparation of adult learners to be thoughtful leaders must be ready to ask questions, to answer questions, to suspend their own assumptions (both for others to see and to hold back their pre-conceived ideas) and to rely on the wisdom of trusted colleagues to arrive at rich solutions to complex problems.

Based upon six assumptions about adult learners identified by Knowles et al. (2005), higher education instructors must match their instructional methods to Knowles’ six assumptions of adult learners. Adult learners bring their own unique learning characteristics to higher education classrooms. Adult learners need to know why they are learning something before they actually engage in the learning. As such, instructors must provide convincing reasons and compelling arguments as to why students will engage in case based learning and must make these reasons visible to students prior to beginning study of the case.

Second, adult learners believe that they are responsible for their own lives and for their own learning. Instructors addressing this assumption must create a learning environment in which students are viewed as competent, capable, and self-directed in their learning. In the Maufette-Leenders, Erskine, & Leenders (2005) model of case based learning, the Individual Preparation phase should reflect a learning environment that honors differing learning styles and physical learning environments, while at the same time, holding high expectations for students to adequately prepare themselves during this phase.

Third, the prior lived experiences of adult learners must be integrated into their learning experiences. Rich diversity exists in the learning styles, backgrounds, interests, goals, and motivations of adult learners. Instructors must provide guidance during the Small Group and Large Group Discussion phases of the Maufette-Leender, Erskine, & Leenders (2005) model of case based learning that encourage students to listen to, reflect upon, and honor the lived experiences of their colleagues. Skillful instructors must focus on instructional methods to support learning through case based learning, discussion, consensus building, and shared decision making.

Fourth, Knowles et al. (2005) found that the readiness of adult learners to learn is generated when there is a need to learn something new. The need, therefore, helps adult learners orient and apply their new learning toward actual personal or work situations. Case based learning, therefore, is an ideal framework for instruction in which the instructor develops specific cases that integrate the theoretical foundations of the new learning with hands on opportunities to apply that learning, first in the classroom environment, and then in their real-life work situations.

The fifth principle of adult learning, as defined by Knowles et al. (2005) is the adult learner’s desire to problem solve, that is, to have the chance to apply their new learning to a problem that they are attempting to resolve. The critical nature of adult learners’ motivations, whether internal or external, for learning new ideas propel learners into integration of theoretical learning into their work experiences. Instructors, in Maufette-Leenders, Erskine, and Leenders (2005) model of case based learning, facilitate a variety of problem solving instructional methodologies within the case based classroom experience, ranging from individual study and preparation, to small group sharing, and eventually, to large group discussions and ultimately, to group decision making.

Finally, the sixth of Knowles’ et.al (2005) principles of adult learning is the critical component of motivation, whether internal or external, for the adult learner. External motivation for new learning (for example, a salary increase or job promotion) and internal motivation for new learning (interest in the content, thirst for new information) are both powerful and appropriate motivators for students. Instructors must monitor students’ motivations and in case based learning, provide external motivation (grades, class recognition) if and when internal motivation of students is not present or observed.

The role of the instructor in case based learning is of critical importance. The instructor must carefully prepare, not only the case itself, but as described by Maufette-Leenders, Erskine, & Leenders (2005), a teaching plan that is detailed and is focused specifically on each of the three phases of student learning. The case based learning teaching plan includes the components addressed in Figure 5, Instructor Preparation and
in Figure 6, Case Teaching Plan.

Figure 5

<table>
<thead>
<tr>
<th>Instructor preparation</th>
<th>Reason</th>
</tr>
</thead>
<tbody>
<tr>
<td>Synopsis of case (first paragraph)</td>
<td>Concise summary of case</td>
</tr>
<tr>
<td>Instructional objectives</td>
<td>Theories and concepts to be covered</td>
</tr>
<tr>
<td>“Immediate” issues</td>
<td>Case decision maker’s urgent concerns</td>
</tr>
<tr>
<td>Additional resources (print, textbooks, videos, etc.)</td>
<td>Incorporates variety of resources used prior to case</td>
</tr>
<tr>
<td>Potential questions to ask during each phase of case based learning</td>
<td>Identify critical issues linking course content, case, and student learning</td>
</tr>
<tr>
<td>“Out of the box” questions</td>
<td>Encourages creativity</td>
</tr>
</tbody>
</table>

Figure 6

<table>
<thead>
<tr>
<th>Case Teaching Plan</th>
<th>Reason</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduce case and timelines</td>
<td>Review of process for case based learning</td>
</tr>
<tr>
<td>Review of relevant theories and content from course</td>
<td>Linkage of theories and content to real-life learning experience</td>
</tr>
<tr>
<td>Elicit student questions</td>
<td>Use for active questioning during Large Group Discussion phase</td>
</tr>
<tr>
<td>Present question to be answered at end of case</td>
<td>Ensure understanding of critical question(s)</td>
</tr>
<tr>
<td>Create “back pocket” questions related to theories and content to be covered during Large Group Discussion</td>
<td>Focus on critical theories and content related to case</td>
</tr>
<tr>
<td>Participant list</td>
<td>Ensure that each student participates in case based learning; provides opportunity to reinforce specific learning for individual students</td>
</tr>
<tr>
<td>Board Plan (white board used to record answers and thoughts from Large Group Discussion)</td>
<td>Write summary document listing all of the relevant and critical ideas to be covered</td>
</tr>
</tbody>
</table>

(Mauffette-Leenders, Erskine, & Leenders, 2005)

Conclusion

Case based learning in higher education engages adult learners in applying research based leadership theories to real-life decision-making. This is accomplished through individual preparation, small group discussion, and large group discussion and synthesis of ideas generated during the first two phases of learning. Implementation of case based learning in an adult learning environment such as higher education bridges the gap for learners between theoretical knowledge and real-life work situations.

Case based is supported by theorists in adult learning, constructivism, and storytelling / narrative. The theoretical bases covered in this paper are drawn from the literature and across multiple disciplines. Schools of higher education may realize benefits in student learning outcomes if the theoretical foundations listed in this article are brought to the classroom by highly trained and skilled instructors. Encouraging student engagement and motivation to learn by adhering to principles of andragogy, constructivism, and the use of narrative (cases) allows the preparation of adult learners to become thoughtful leaders.

This paper discussed a specific model of case based learning developed by Mauffette-Leenders, Erskine, and Leenders (2005). This process is definitively predicated upon having trained instructors who write cases, use cases in their instruction, and monitor case based learning. Instructors also evaluate students’ responses to the
cases according to a framework developed by Mauffette-Leenders, Erskine and Leenders (2005). It is recommended that programs of higher education that wish to move toward implementation of case based learning invest in comprehensive professional development for the instructors who will be utilizing this methodology. The skills and abilities of the faculty are directly related to the success of the learning experiences for students engaged in case based learning.
References


Appendix A
Ocean Breeze Middle School

In the early part of January 2013, Jenny Etan, principal of Ocean Breeze Middle School, faced the following decision. Matt Zander, Director of Grants and Funding, in the Haiku County School District, had secured a $75,000, three-year grant, to begin on July 1, 2013, to address equity at Ocean Breeze Middle School. Matt was ready to implement the equity plan that he had created for Ocean Breeze but his plan did not involve the thoughts of any members of the Ocean Breeze community. Ms. Etan wondered what action, if any, she would take.

Ocean Breeze Middle School

Ocean Breeze Middle School was one of five middle schools serving a diverse community in Haiku County, on the East Coast of the United States. Ocean Breeze Middle School served sixth through eighth grade students who lived in the geographic neighborhood served by the school or who attended the school through a “school of choice” lottery system. The school served 625 students, most of who came from families whose socioeconomic status was well below the poverty line. Seventy-five percent of the students attending Ocean Breeze Middle School received free and/or reduced lunches. Sixty-four percent of the student population was African-American; 22 percent of the students were Caucasian, 13 percent of the student population was Hispanic and one percent of the student population was Asian. Forty three percent of the students at Ocean Breeze Middle School had Individual Education Plans (IEP’s) and were served in a range of special education programs.

Ocean Breeze Middle School had one principal, a Caucasian woman, and one assistant principal, an African-American male. The school had 3 teams made up of four teachers each, six electives teachers, ten teacher aides, and eight special education teachers. The staff was eighty percent Caucasian and twenty percent African-American. All teachers met the requirements for “Highly Qualified” teachers, however, only three of the academic content teaching staff (Language Arts, Math, Science, Social Studies) had over five years of teaching experience.

Equity Issues at Ocean Breeze Middle School

Matt Zander, Director of Grants and Funding in the Haiku County School District, was highly respected by most of the staff in the district, however, Matt’s preferred leadership style was to design the equity initiative for Ocean Breeze Middle School without involving the faculty in making decisions about how the funding would be used to address equity over the next three years. Jenny had worked hard to ensure that shared decision making was critical to every aspect of the school’s culture and this commitment to team work and shared decision making had become the norm at Ocean Breeze Middle School.

Jenny, therefore, told Matt that she wanted to create a ten member Task Force drawn from the Ocean Breeze Middle School staff and family community. This Task Force would be charged with formulating the three-year action plan for use of the equity grant funding at Ocean Breeze. Each of the Task Force members had specific and relevant expertise that Jenny believed would contribute toward addressing and improving equity at the school.

On the other hand, Gerald Wilson, one of the Task Force members, while having effective experience with developing effective grant funded programs, had an aggressive personality that could irritate the other Task Force members and eventually, the staff as a whole. One of the other Task Force members, Polly Klark, had recently taken a year-long course on how to have challenging conversations about equity and students’ academic achievement and she was eager to use her new expertise to address equity issues at Ocean Breeze Middle School. Should either Glen or Polly negatively impact their peers throughout the design process, the staff at Ocean Breeze might resist the entire intent and implementation of the grant. If this happened, Jenny would have no choice but to impose programs that were developed solely by Matt Zander and that would not reflect the collective wisdom of the staff.

Jenny Etan understood that an action plan for use of the grant funding had to be in place by August 15, 2013. She was, therefore, anxious to make her decision quickly.
Appendix B
Ocean Breeze Case Teaching Plan

Case: Ocean Breeze Middle School
Date: January 3, 2014
Location: Orlando, FL
Participants: The Clute Institute participants

Introduction of case
Introduction of related readings, tools, support documentation
Comments/ questions from participants
Assignment questions: If you were Jenny Etan, what decision would you make?

Back pocket Questions
1. Define financial equity and cite two theorists whose ideas you support.
2. Define financial adequacy and cite two theorists whose ideas you support.
3. Discuss to whom should financial equity apply the most? Why?
4. Help us understand how inequity for certain populations is a necessary component of American society as it currently exists.
5. Transparency in financial equity should be a required component of the school district’s budget and budget discussions. Defend your position.
6. Discuss at least three types of “efficiency” in financial costing out strategies.

Participation Plan - Volunteer Preferences
1. 
2. 
3. 

Call List
1. First seat Row
2. Middle seat, Row Four
3. Last seat, last row

Board Plan

<table>
<thead>
<tr>
<th>Concepts</th>
<th>Learning Phase</th>
<th>Collaborative Decisions/Actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adequacy</td>
<td>Individual Prep; Small Group; Large Group</td>
<td></td>
</tr>
<tr>
<td>Equity</td>
<td>Individual; Small Group; Large Group</td>
<td></td>
</tr>
<tr>
<td>Legal challenges to financial equity and adequacy</td>
<td>Individual Prep</td>
<td></td>
</tr>
<tr>
<td>Matrix of equity: students, teachers, staff, materials, physical plant, class size, teacher training</td>
<td>Large Group</td>
<td></td>
</tr>
<tr>
<td>Collaborative decision making</td>
<td>Small Group; Large Group</td>
<td></td>
</tr>
<tr>
<td>Correlation of school finance to student achievement</td>
<td>Large Group</td>
<td></td>
</tr>
</tbody>
</table>