Learning on the Move: Making Meaning Through Movement

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Enrollment in graduate programs continues to rise at a steady pace in the United States with a 9% increase over the past 10 years, a pace that is expected to continue through 2026. Among these students, 56% are “adult learners” between the ages of 25 through 39 years. With this in mind, instructors need to be mindful of the unique needs that these students have as they pursue advanced education. These learners require and are motivated by classroom experiences that are interactive, draw upon their professional and personal experiences, and through which they partner with others in the knowledge creation process. By leveraging adult learning theories and instructional approaches from the K-12 environment, the authors present classroom activities for adult learners that meet their unique needs. Examples are provided for how the activities can be used in a variety of disciplines.

Over the course of the past decade, there has been a 9% increase in enrollment in graduate programs across the nation and growth at this pace is expected to continue through 2026 (National Center for Education Statistics [NCES], 2017). A recent study indicates that 56% of all graduate students can be considered “adult learners,” (Merriam & Bierema, 2014) between the ages of 25 and 39 years (NCES, 2018). In the field of education, it is standard practice to connect theory to instruction as learning and assessment activities are designed. As theory and practice evolve, so must pedagogical approaches. However, as noted by Gouthro (2019), educators who work with adults may not spend as much time learning about advances in theory, as do their peers who teach children. Furthermore, Boshier (2006) observed that less is discussed about the process of adult learning; the quality of the interactions between teacher and the adult student are not always fully explored in practice and in the literature base. The complexities of the teaching and learning process for adults can only be understood by having a knowledge of theory and its intentional link to practice. The authors work with graduate students in a college of education who are pursuing careers in the K-12 setting, higher education, and other for-profit and nonprofit organizations. In developing their practices, they recognize the important role that informal and formal theories of learning and pedagogy play in their practice.

Assumptions About the Adult Learner

The authors believe that adults learn as adolescents and young adults do, however, the contexts for learning and the outcomes desired are different. These differences are driven in part by experiences adults have, including environmental conditions such as globalization, working in a knowledge-based society, changing demographics, advancement in technology, and the motivation and need for learning (Boshier, 2008; Merriam and Bierema, 2014). Additionally, as noted by Keller (2018), the motivation for learning of adults is different from that of younger individuals as it reflects students’ attention and perceived relevance of the experience, the confidence of their roles in the experience, and satisfaction with the learning experience. Adult learners will be motivated to achieve learning goals if they believe there is value in doing so and if they can address any obstacles they perceive in the learning process. They will seek out and engage in learning experiences that are relevant to their current needs and experiences (Boshier, 2006). Therefore, the learning environment and strategies used to promote adult learning need to be adapted accordingly.

Adult learners in formal educational experiences—whether in degree-seeking or continuing education programs—require an environment that meets their unique needs. Those needs reflect current personal or professional demands. Adult learners desire to gain knowledge, learn new skills, improve practices, advance in their vocations, and draw from their accumulated reservoir of life experiences to aid learning (Boshier, 2008; Connolly, 2008; Knowles, 1980; Merriam & Bierema, 2014). Further, as Knowles (1980) notes, the adult’s learning shifts from one of subject-centeredness to one of performance-centeredness. Certainly, the approaches to designing educational experiences require the instructor to be cognizant of these needs to ensure that a conducive environment for development and learning is occurring.

Learning in the Graduate Classroom

Knowles & Associates (1984) suggests that the adult learning environment needs to be cooperative and collaborative where both the learner and teacher contribute to the methods and resources for instruction. Because adults learn by doing, instructional strategies should focus on performance of tasks and application of concepts rather than memorization of content. The role of the teacher is to draw out the internal motivators of students in an effort to create an environment where knowledge can be formed and, because learning is
socially created, students understand and are entered into the learning process (Knowles et al. 1984).

Experiential learning—learning through reflection and doing—is a central focus of the adult learning experience. Kolb (1984) notes four stages that learners go through in the experiential learning process—concrete experience, reflective observation, abstract conceptualization, and active experimentation. Individual learning preferences will prompt the learner to favor one of the stages over the others (Kolb & Kolb, 2009; Kolb, 1984). For students to be prepared for experiencing, they must open their minds to the current experience and be present in the moment. This allows for the development of interpersonal relationships, critical for the group learning experience (Ghaith, 2002). Preparing for reflection not only requires the space and time to do so, but a stillness and quieting of the mind to foster introspection. Developing a capacity for thinking requires the ability to conceptualize and manipulate ideas, and to do so without distraction from internal and external forces. Finally, initializing the ability of action calls on the adult learner to connect the prior stages to take decisive action. However, key to this is the ability to be courageous in the process and not to be inhibited by self-doubt, which can be fostered by a safe, supportive environment (Downer et al.).

Experiential learning can take many forms, but for the adult learner, should focus on creating linkages with their immediate work environment, such as action learning. Action learning is a pedagogical approach borrowed from managerial and professional training in the private sector and has gained momentum in the higher education environment in recent decades. Davidson & Major (2014) provide clarity to the muddy waters of action learning by delineating the various forms often used in higher education. Cooperative learning allows students to work together in small groups, in real time, so that all group members can participate in a collective task. Students who engage in collaborative learning work together in groups, alongside a teacher, to develop knowledge. Through action learning approaches such as collaborative problem solving and team learning, the adult student should be motivated to learn (Revans, 1982).

Active engagement with the learning process is associated with positive academic outcomes, including academic achievement and persistence, commitment, and investment in learning (Fredricks, Blumenfeld, and Paris, 2004). The goal of the instructor should be to promote three types of engagement: behavioral, emotional, and cognitive. Behavioral engagement encompasses behaviors associated with positive conduct, involvement in learning and academic tasks, and participation in extracurricular activities. Emotional engagement pertains to the learner’s affective reactions within the classroom, including interest, boredom, and anxiety. Finally, cognitive engagement relates to self-regulation and the metacognitive strategies used to plan, monitor, and evaluate learning (Fredricks et al.).

In high quality classrooms, instructors promote active engagement in lessons through small group work, hands-on activities, writing, and responding to questions that encourage behavioral engagement. This behavioral engagement is critical to academic success and is thought to be related to emotional (e.g., attitude and interest) and cognitive (e.g., thoughtfulness and persistence to task) forms of engagement (Downer, Rimm-Kaufman, & Pianata, 2007). Further, instructors in engaging learning environments form warm, personal connections with students that encourage autonomy in learning, reinforce desired behaviors, and establish clear expectations for learning and behavior (Downer et al.).

Certainly, active engagement with the curriculum is critical to the development of knowledge and skills, no matter the age of the learner. Kolb (1984) suggests that experience is at the heart of understanding and that learners must be able to involve themselves fully and openly in new experiences. Just as for young children, active learning experiences are also necessary for older learners, including undergraduate and graduate students (Draper, Cargill, and Cutts, 2002). In fact, college classes mostly comprised of lectures that involve content dissemination promote passivity, as students record lecture notes without thinking deeply or interacting with the material (Draper et al.). As such, it is important for university faculty to provide active learning opportunities for adult learners.

Regardless of the teaching method, it is the instructor’s role to provide opportunities for the student to progress through the learning stages, from experiencing, to reflection, to thinking, and, finally, to acting. Learning spaces for the adult learner must encourage the individual’s readiness to learn and promote her social role in the learning process. Students will respond favorably to environments where they are co-creators in the learning process and where they can draw upon prior experiences in making linkages between knowledge creation and practice (Boshier, 2008; Merriam & Bierema, 2014). Spaces need to be open and accessible and free of any barrier that may hinder learning. Here, comfort and connection are key (Connolly, 2008).

**Embodied Learning in the Classroom**

Embodied learning, or using the whole body in learning, creates a unique opportunity for the adult learner. Embodiment is form of experiential learning where our physical selves contribute to meaning-making (Lawrence, 2012) and where our intuitive and tacit knowledge comes into play (Merriam and
Bierema, 2014). Our bodies and minds are certainly connected and should be considered equally when creating learning experiences for adults, encouraging them to draw upon their emotional and imaginative connection with the self. Although much research has focused on the relationship between cognition and movement, it has primarily focused on adolescent learning or adult experiences such as sports, dance, or other aerobic activities (Erlauer, 2003; Oppezzo & Schwartz, 2014). However, emerging scholarship is making the connection between the affective and cognitive domains and how, when working in tandem, they promote creativity.

The brain-body relationship in learning is important, as movement decreases fatigue and increases concentration. The increased oxygen in the brain that comes from movement gives the brain more energy and reduces stress, allowing the adult to be ready for learning (Erlauer, 2003; Merriam & Bierema, 2014). In recent years, the “walking meeting” (Clayton, Thomas, and Smothers, 2015) has become commonplace in the work setting as a way to multitask but can be considered a form of embodied learning. The Clayton, et. al. study, which focused on the workplace, concluded that the use of “walking meetings” reduced barriers between supervisor and employee, removing hierarchy from the experience. Much like the employee, an adult learner in the classroom desires a learning environment where the hierarchy between teacher and student is minimized. Key for the adult learner is to be a co-partner in the knowledge-creation process (Ghaith, 2002) and embodied learning can help facilitate this rich learning environment.

Gilson, McKenna and Cooke (2008) also note that walking while working provides many benefits to individuals, including improved mental focus, a greater sense of community, enhanced mood, and increased energy. Movement relaxes the brain by releasing chemicals when an individual is walking while mentally attending to work tasks. This aids in executive function which governs how individuals focus on tasks. Clayton, et al. (2015), Oppezzo and Schwartz (2014) and Gilson, et al. (2008) also found that adults who walked while completing mental tasks demonstrated more creative output than while sitting. These effects remained the same regardless of being indoors or outdoors. Moving while engaging in mental activities may facilitate both divergent and convergent thinking, requirements for creative problem solving. Learning how to identify and use both divergent and convergent thinking, and knowing appropriate uses of each, promotes creativity (Puccio, Mance, & Murdock, 2011). As noted previously, adult learners are motivated by problem-based learning, and moving while engaging in cognitive tasks can facilitate the development of problem-solving skills. Additionally, an individual who is engaged in embodied learning may be pushed beyond his or her comfort zone, opening up opportunities for new explorations and relationships (Meyer, 2012; Oppezzo and Schwartz 2014) This improves interpersonal relationships and creates a sense of community among colleagues as noted by Gilson, et al. (2008).

Examples of Active Engagement and Embodied Learning

In light of the many benefits of active and embodied learning experiences, the authors posit that integrating these two forms of learning creates a rich learning environment for graduate students. The activity descriptions that follow build upon the practice of adult learning in groups, wherein the instructor uses an approach that creates energy and engagement among the learners. Additionally, with a shared learning goal, the dialectic approach to learning allows for all group members to change and develop skills (Connolly, 2008; Schein, 1996).

Walk and Talk

Walk and Talk encourages adult learners to move from landmark to landmark while discussing and reflecting upon course content and readings. At each landmark, the course instructor asks small groups to report on their discussions and prompts with follow-up questions, which promotes collaborative learning. Walk and Talk incorporates embodied and social learning research and can be applied to various learning objectives from simple recall to creative problem solving.

Following is an example of Walk and Talk for recall in a school psychology course on academic assessment. Students had read about the five “big ideas” in reading skill development prior to the class session. During the Walk and Talk, small groups of three to four students discussed the idea assigned to their group and how a reading skill deficit in that area might manifest. At checkpoints, the instructor asked the groups to share discussions with the larger class. This activity was extended the following class session when students were asked to engage in creative problem solving. During the second Walk and Talk activity, the groups brainstormed interventions to address skill deficits in their assigned skill areas. These activities enabled students to collaborate and learn from one another while moving, which fosters concentration (Merriam & Bierema, 2014) and risk-taking (Meyer, 2012).

Within a student affairs course, the activity was used for students to explore student development theories with teams moving to various checkpoints. Each checkpoint was identified by a piece of easel paper on the wall with a specific theory and the same guiding prompts for each: In your own words, describe
the theory. What about the theory is confusing to you? The latter, “muddiest point” reflection, promotes metacognition as it encourages learners to describe what is most confusing about a topic (Mosteller, 1989). Students who recognize where their understanding is “muddy” can experience cognitive redefinition (Schein, 1996) by opening themselves up to new information, which positions them to direct their learning to expand knowledge and understanding.

**Four Corners**

In the children’s game Four Corners, the corners of a room or drawn square are marked with numerals one through four. One child is designated as “it” and sits in the center of the square. He hides his eyes and counts to ten while the other players select a numbered corner in which to stand. After the child who is “it” has counted, with eyes still closed he calls out a number, one to four, and the players standing in the corresponding corner are “out” and must sit. This sequence repeats until one player is left standing; that player then assumes the role of “it” and all players reenter the game.

A modified version of Four Corners has been designed for use with students in a school psychology graduate program who are required to take the Praxis® (Educational Testing Service, 2019) for state and national certifications. To start, the instructor sits in the middle of the room with index cards that include multiple choice questions that mirror those on the Praxis®. Questions are both recall and application and of key concepts, theories, or approaches within an organizational leadership program. For example, in a strategic planning course, this activity was used to describe steps in the Strategy Change Cycle (Bryson, 2011) and how they are applied in the organizational setting. Questions were focused on the purpose, features, and behaviors required for specific steps in each of the corners. A question posed included, “At what step of the strategic planning process do leaders identify internal and external requirements, expectations, and pressures?” and students moved to one of the corners identifying each of the four steps in the planning process.

The Four Corners activity reflects the research on the brain-body relationship. The movement about the room and ensuing discussion keeps students engaged in the learning process more fully than simply reviewing questions at desks. Moving in this way helps to decrease physical and cognitive fatigue and provides students with more energy for learning (Erlauer, 2003; Merriam & Bierema, 2013). This arrangement also promotes social interaction, as students talk to one another and form a rationale for their response choice for each question. Interaction of this nature fosters interpersonal relationships and creates a sense of community (Gilson, McKenna, & Cooke, 2008) through which students can learn from one another. Informal feedback from students indicates that they really enjoy this learning “game.”

**Around the World**

Around the World is another children’s game, typically played in the classroom for recall of facts. For example, it is often used to reinforce math computation facts. To start, the teacher presents a math question, such as “What is 2 x 7?” to two students at the head of a column of desks. The first to answer correctly moves to the next person in the column to challenge that individual. The teacher then asks a new question. Once again, the first to answer correctly moves to the next challenger in the column and so forth. If a student answers five consecutive questions correctly, she sits with the fifth challenger and a new round starts with the next two students in the column. Play continues until the first student makes her way around the room to her original seat.

In a graduate classroom, Around the World can be played for course content that requires recall. For example, we have utilized the game with students who need to know education and related laws. Students are presented with brief scenarios and asked to name the relevant court decision (e.g., Larry P. v. Riles; Tarasoff v. Regents of the University of California). Given the mixed results on game-based competition in the classroom (Chen, Liu, & Shou, 2018), students in our courses have played Around the World in teams of two, which enables them to consult with one another prior to providing a response. This reduces the negative impact that competition may have on self-efficacy, motivation, and performance (Chen et al., 2018). Teaming also promotes peer-to-peer learning and an environment that is collegial.

Other examples of how Around the World has been used include public administration courses where
students are expected to know and apply theoretical concepts, and practices in nonprofit and government organizations. For example, students in these courses need to know various types of public policy. Offering examples of policies (e.g., prohibiting texting while driving, developing federal highways, low-income housing), students state the type of policy (e.g., distributive, regularity, redistributive). Within leadership and management courses, the activity has been used to recall specific employment laws and regulations at the state and federal levels. Here, students are challenged to identify and delineate if the provisions of the law (i.e., family leave, harassment) are the state or federal version.

Students have noted that they remember the case law better through this instructional method than when they sit in lectures. Although the game involves recall from assigned readings, rather than creative problem-solving, Around the World promotes active engagement with the content. Listening to a lecture and recording notes about case law promotes passivity; learners do not need to think deeply or interact with the material (Draper, Cargill, & Cutts, 2002). Around the World, on the other hand, requires the students to consider the scenarios and which court decisions are reflected. Further, despite the negative findings related to classroom competition noted above, there exists other research that suggests that some competition is motivating. When competing in a game, it is assumed that all students will work harder, which enables the group to improve knowledge and progress (Chen et al., 2018). Our teaming arrangement motivates yet ameliorates the potential negative effects of competition. Around the World can be used with any course content that requires recall of factual information.

**Discussion**

The authors have explored new approaches to engage adult learners in the classroom whether it is in the university setting or workplace training environment. There is a recognition that as both theory and pedagogy evolve, teachers must explore alternatives to their standard practices. By drawing upon practices common in the K-12 setting, the authors have designed activities that will meet adult learner needs and allow them to reflect on personal or professional experiences. Through the activities described above, learners engage in interactive experiences that promote knowledge creation, skills development, and relationship-building. By considering new ideas and drawing from their life experiences, they become co-partners with teachers in the learning process.

Informal feedback from graduate students who have engaged in these experiences suggests that they gained a broader meaning of concepts and theories and their applications to the organizational environment. This supports what is known about adults and how they are motivated in the classroom and the social environment needed to promote learning. It is also important to note that graduate students take courses in the evening, often after a full day of work. The authors recognize that the opportunity to move while recalling information and testing ideas with others increases the energy of the classes and creates a greater sense of community among the students. This point cannot be underscored enough as graduate students experience high levels of stress due to challenges from academic requirements, work-life balance, burnout and compassion fatigue, and anxiety, among others (El-Ghoroury, Galper, Sawaqeh, & Bufka, 2012). This sense of community creates a positive social experience for the students, which can counter the effects of emotional exhaustion and stress (Boren, 2013). As the graduate student population continues to grow and students balance multiple responsibilities, teachers need to consider creative ways in which to engage adult learners. Our activities are easily adaptable to a wide range of theories and concepts, are easy to implement, and do not require the purchase of materials, making them accessible and feasible to a variety of instructors.

**References**


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