Teaching Accessibility Standards to Generation Y Students

Sandra Klitzing
School of Kinesology and Recreation
Illinois State University

Abstract

The Americans with Disabilities Act (ADA) of 1990 mandated that facilities and programs are accessible, so people with disabilities can be included in all aspects of community life including recreation (Dattilo, 2002). Understanding accessibility standards is not an easy task. Educators are faced with the challenge of teaching technical content, like legislation and accessibility, to Generation Y students. The widely accepted experiential learning theory outlined by Kolb (1984) supports the premise of active learning as an effective method for teaching adult learners, and seems to correlate well with the characteristics of Generation Y students. This paper will describe an accessibility assignment that is geared for Generation Y students, based on experiential learning theory, and designed to teach students how to locate and utilize current accessibility standards.

KEYWORDS: Access Board, Department of Justice, accessibility, standards

Correspondence concerning this article should be addressed to: Sandra Klitzing, Illinois State University School of Kinesiology and Recreation, Campus Box 5120, Normal, IL 61790, (309) 438-8396, slklitz@ilstu.edu

Introduction

The Americans with Disabilities Act (ADA) of 1990 mandated that facilities and programs are accessible, so people with disabilities can be included in all aspects of community life including recreation (Dattilo, 2002). Recognizing this mandate, the National Recreation and Park Association (1999) approved the Position Statement on Inclusion. The purpose of the statement was to "encourage all providers of park, recreation, and leisure services to provide opportunities in settings where people of all abilities can recreate and interact together" (p. 94). The beliefs behind this purpose were: 1.) people with disabilities have a right to leisure, 2.) leisure can increase the quality of life of all individuals, 3.) leisure professionals should provide support, assistance, and accommodations so people with disabilities can be included in all activities, and 4.) access barriers that prohibit individuals from participation in recreation should be removed. Dattilo (2002) noted inclusion meant all people should "feel welcome and supported to participate in community programs of their choosing" (p. 27). One component of inclusion is physical accessibility (Anderson & Kress, 2003), which is different from universal design. Universal design is a philosophy that believes all products and environments should be accessible to all people without the need for modification or adaptation; it is not currently codified or enforced (Law, Yi, Choi, & Jacko, 2007). Physical accessibility, on the other hand, is based on codes, laws or standards that legally must be met; agencies can be fined for not being in compliance (Joines, 2009). Therefore, recreation and therapeutic recreation practitioners must be knowledgeable of accessibility standards, so their agencies' facilities are physically accessible and in compliance with the ADA.

Understanding accessibility standards is not an easy task. The United States Access Board's website includes guidelines and standards, and delineates the differences between them. Guidelines are created by the Access Board and are the baseline for standards; standards have legal authority and can be enforced. After ADA became law, there were two standards that established requirements for the accessibility of constructed or altered facilities, the *Uniform Federal Accessibility Standards* (UFAS) and the *1991 ADA Standards for Accessible Design*. The accessibility of federal facilities was governed by the UFAS as mandated by the Architectural Barriers Act (ABA), whereas ADA addressed accessibility of places of public accommodation, commercial facilities, and state/local government facilities through the *1991 ADA Standards for Accessible Design*. Although both standards provided accessibility requirements, differences could be found in scoping (required number of elements that must be accessible) and technical requirements (actual dimensions). In 2004 differences between the two standards were reconciled by the Access Board in the *ADA and ABA Accessibility Guidelines for Buildings and Facilities*. Recently the Department of Justice (DOJ), who is charged with oversight of ADA compliance, approved and published the *2010 ADA Standards for Accessible Design* based on the *ADA and ABA Accessibility Guidelines* and additional design requirements. The *2010 ADA Standards for Accessible Design* become mandatory March 15, 2012. Teaching undergraduates about accessibility standards can be a challenge as accessibility standards and guidelines change, often quicker than textbook descriptions of the standards. Therefore, students must learn how to obtain information from the United States Access Board website (www.

access-board.gov) and the Department of Justice ADA Home Page (www.ada.gov) in order to locate the most current standards on accessibility.

Educators are faced with the challenge of teaching technical content, like legislation and accessibility, to Generation Y students. Authors noted Generation Y students learn differently than previous generations (e.g., Black, 2010; Coates, 2007; Lower, 2008; Skiba & Barton, 2006). These students are said to have short attention spans, get bored easily, want to be entertained, and prefer group activities when they are in classes. Generation Y students do not typically use textbooks; they use the Internet to obtain information (Skiba & Barton, 2006). Based on all these characteristics, Skiba and Barton (2006) indicated traditional classroom teaching strategies are no longer effective for Generation Y students. Coates (2007) provided the following tips for teaching Generation Y: include experiential learning, use technology, make learning fun, incorporate games in lesson plans, recognize preference for group activities, facilitate "learning by doing" so it is easier for students to recall and apply material, and make learning relevant by connecting content to real life problems. The widely accepted experiential learning theory outlined by Kolb (1984) supports the premise of active learning as an effective method for teaching adult learners, and seems to correlate well with the characteristics of Generation Y students. Experiential learning starts when students are engaged in a structured activity that is connected to course objectives. Learning continues as students share reactions and observations or reflect on the experience, and ultimately make generalizations to new situations (Benander, 2009; Kolb & Kolb, 2005; Specht & Sandlin, 1991). This paper will describe an accessibility assignment that is geared for Generation Y students, based on experiential learning theory, and designed to teach students how to locate and utilize current accessibility standards.

Description of Learning Activity

At Illinois State University, a variety of hands-on learning activities are utilized to teach students about accessibility standards and their applications to a wide range of leisure service facilities. Students are introduced to the Access Board's website and the various guidelines located there with emphasis on the *ADA and ABA Accessibility Guidelines for Buildings and Facilities*, and to the *2010 ADA Standards for Accessible Design* on the DOJ's website. Standards and accessibility guidelines are introduced during class lectures that include a discussion on accessibility of playgrounds and outdoor areas. For the first assignment in the accessibility segment, students complete a worksheet by describing accessibility requirements for restaurants, lodging, and emergency egress. The second assignment, described in this paper, is an accessibility scavenger hunt of a campus building. The final assignment is a paper that requires students to use standards for recreation facilities to check accessibility of a miniature golf course, golf course, sports facility, or swimming pool. Students share the results of their accessibility checks and paper in class, so all can learn about accessible elements of various recreation facilities.

The Accessible Scavenger Hunt incorporates experiential learning components. Through this structured activity, students complete measurements and learn how to use current standards located on government websites to determine compliance and

accessibility. The scavenger hunt is completed during one 50-minute class period. Three or four students of the same sex are grouped together. Each group is given a handout that directs them to measure various areas of a familiar campus building. As many of the buildings on campus are aging, the buildings comply with standards to varying degrees. The groups are each given a tape measure and are instructed to measure areas such as an outside door, ramp, water fountain, and restrooms (see Figure 1). Groups start at different areas to decrease congestion; ultimately they rotate through each of the areas. A volunteer is placed near the door and ramp, and the instructor is near the restroom and water fountain to insure students are measuring the requested elements correctly and to answer questions the students may have.

Students are given 25 minutes to complete their measurements. After 25 minutes, the students go to a computer lab to see if the elements they measured meet accessibility standards. Students are directed to the *2010 ADA Standards for Accessible Design* on the DOJ website. Students search the standards to locate correct measurements for the elements they measured. After the measurements are found, members of each group agree whether or not the standards were met. If the standards were not met, they explain why. The instructor goes between groups to insure the students are on the correct website and answers questions they might have.

During the last ten minutes, the instructor processes the activity to help students reflect on the scavenger hunt. The instructor explains the difference between the standards used in the activity and those noted in the course textbook. The instructor asks students how easy or difficult it was to determine what the correct measurements should be according to the standards. It is pointed out how precise the measurements are, and when a measurement is just slightly off accessibility can be impacted. The instructor asks the students to state their measurements of the various elements and their decision about accessibility before the instructor reports the actual measurements and accessibility. Students will build on this assignment for the recreation facilities accessibility check.

Outcomes of the Learning Activity

There are several outcomes from this scavenger hunt activity. This activity introduces students to the newly finalized *2010 ADA Standards for Accessible Design*. Students learn to use the DOJ's website and the most current standards to evaluate building accessibility. The ability to use the website will ensure students know where to locate current standards for other projects and after graduation. When students become practitioners they should know how to locate the most accurate accessibility standards as a result of this experiential activity.

The scavenger hunt activity forces the students to take actual measurements of various elements. Previous components on accessibility in the course have the students reading the standards, but reading the standards and actually using them to check measurements are very different. Students learn that slight variations from the standards can render an element inaccessible. Actually measuring elements assist the students to identify what makes a facility accessible or inaccessible.

Directions: Complete the scavenger hunt worksheet first, and then check to see if the measurements are up to standards at the following URL:

http://www.ada.gov/regs2010/2010ADAStandards/2010ADAStandards.pdf

While using my wheelchair, I enter the East entrance of Williams, because this entrance has a wheelchair ramp. This entrance does not have an automatic door opener. The doorway is ____ inches wide and has a threshold that is beveled to less than ____ inch. The hardware on the door is ____ inches high and is operable with ____ hand(s). Can you tell me; does this entrance follow the accessibility standards? (yes or no).
Why? _____

Once I've entered the building, I take the ramp that's found in the entrance. The ramp has a _____ surface and is ____ inches wide. It has a rise of ____ inches and its run is ____ inches. Does this follow accessibility standards? (yes or no). If no, please explain why? __ _____

After going up the ramp, I decide to get a drink of water and use the restroom before I go to class. I am going to use the drinking fountain outside the restroom. The restrooms are on the second floor, so I take the elevator. Before entering the restroom I stop at the drinking fountain outside the door. The water fountain has ____ inches of knee clearance height and has ____ inches of knee depth underneath. The water stream is over ____ inches high and I can operate it with ___ hand(s). The spout on the fountain from floor to top of the spout is ____inches high. Does this follow the accessibility standards? (yes or no) If no, please explain why? _____ _____

After getting a drink, I head into the restroom. Once I get through the door, I head for the accessible stall. The stall is ____ inches wide, and ____ inches deep. This seems like enough room; could you check to see if this meets the accessibility standards? (yes or no). Please explain why? _____

I notice that the toilet seat is _____inches high and the grab bars are ____ inches high with a space between the bar and the wall of only ____ inches. Do all of these measurements meet the accessibility standards? (yes or no). If not, which ones do not meet the standards? _____ _____

Afterwards, I head for the sink to wash my hands. The sink is ____ inches high, and has ____ inches of knee clearance and ____ inches of toe clearance underneath pipes that are usually insulated. Are they insulated? (yes or no). The faucet handles are operable with ____ hand(s). Can you tell me; are there any accessibility issues around the sink? (yes or no). If yes, what are they? _____

Upon leaving the restroom, I take the elevator to the basement to head to class. After getting off the elevator I decide to get one more drink before class starts, so I head down the hall to the water fountain at the bottom of the main stairs. This water fountain has ____ inches of knee clearance height and has ____ inches of knee depth underneath. The water stream is over ____ inches high and I can operate it with ____ hand(s). The spout on the fountain from floor to top of the spout is ____ inches high. Does this follow the accessibility standards? (yes or no) If no, please explain why _____

Figure 1: Accessibility Scavenger Hunt

Recommendations for Using Learning Activity

Instructors must continue to identify active learning assignments to engage Generation Y students when teaching complex topics students might find boring. Scavenger hunts are activities that are familiar to students and work well with experiential learning components. The accessibility scavenger hunt discussed in this paper is designed to be used in a recreation for people with disabilities course or an inclusive recreation course with lower level undergraduate students. The instructor must obtain measurements before the scavenger hunt is conducted. A sufficient number of durable tape measures are needed so each group has a tape measure. It is helpful if the building that is used is not one of the newer buildings on campus so students can identify some inaccessible elements. In order for the students to check their measurements, the scavenger hunt needs to take place in a building that has a computer lab large enough for the class size. This activity is best conducted in classes no larger than 30 students. Too many students would require more areas for the scavenger hunt and therefore increase time needed to take measures and decrease time in the computer lab. If a group consists of more than four students, only a few students will become actively engaged in measurement. Ideally because students measure elements in a restroom, same sex groups are needed. If mixed sex groups are formed, two tape measures are needed so both the men and women's restrooms can be measured. Restrooms that are not the most widely used are chosen, and measurements are taken during a class period so the restrooms are normally empty.

References

Anderson, L., & Kress, C. B. (2003). *Inclusion: Including people with disabilities in parks and recreation opportunities*. State College, PA: Venture.

Benander, R. (2009). Experiential learning in the scholarship of teaching and learning. *Journal of the Scholarship of Teaching and Learning, 9*(2), 36-41.

Black, A. (2010). Gen Y: Who they are and how they learn. *Educational Horizons, 88*(2), 92-101.

Coates, J. (2007). *Generation Y – The millennial generation*. Retrieved from: http://honolulu.hawaii.edu/intranet/committees/FacDevCom/guidebk/teachtip/GenY.htm

Dattilo, J. (2002). *Inclusive leisure services: Responding to the rights of people with disabilities* (2nd ed.). State College, PA: Venture.

Department of Justice. (2010). *2010 ADA standards for accessible design*. Retrieved from http://www.ada.gov/regs2010/2010ADAStandards/2010ADAStandards.pdf

Joines, S. (2009). Enhancing quality of life through universal design. *NeuroRehabilitation, 25*,155-167. doi:10.3233/NRE-2009-0513

Kolb, D. (1984). *Experiential learning: Experience as the source of learning and development.* Englewood Cliffs, NJ: Prentice Hall.

Kolb, A. Y., & Kolb, D. A. (2005). Learning styles and learning spaces: Enhancing experiential learning in higher education. *Academy of Management Learning & Education, 4*(2), 193-212.

Law, C. M., Yi, J. S., Choi, Y. S., & Jacko, J. A. (2007). Unresolved problems in accessibility and universal design. *Ergonomics in Design, 15*, 7-11.

Lower, J. (2008). Brace yourself here comes Generation Y. *Critical Care Nurse, 28*(5), 80-84.

National Park and Recreation Association. (1999, December). Position statement on inclusion. *Parks & Recreation*, 94-95.

Skiba, D. J., & Barton, A. J. (2006). Adapting your teaching to accommodate the net generation of learners. *Online Journal of Issues in Nursing, 11*(2). Retrieved from http://www.nursingworld.org/MainMenuCategories/ANAMarketplace/ANAPeriodicals/OJIN/TableofContents/Volume112006/No2May06/tpc30_416076.aspx

Specht, L. B., & Sandlin, P. K. (1991). The differential effects of experiential learning activities and traditional lecture classes in accounting. *Simulation & Gaming, 22,* 196-210. doi:10.1177/1046868191222003

United States Access Board. (2010). Retrieved from http://www.access-board.gov