The power of experimential learning

THE POWER OF EXPERIENTIAL LEARNING

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ABSTRACT

Learning through experience is perhaps the most fundamental way in which we learn about the world around us. Learning has been defined as a "relatively permanent change in knowledge, attitudes, or behavior as a result of experiences." But what makes an experience truly educational and positive? How does experiential learning go beyond hands-on learning? Experiential learning is considered a holistic approach to learning and involves a person's thoughts, feelings, and actions. Experiential learning places the learner at the center of the learning experience. The educator's role is to guide or facilitate the learning process. For learning to be meaningful, learners need to have opportunities to reflect on and share their experience with others and apply what they learned to new situations. Thus, how we teach is just as important as what we teach. This paper provides an overview of the experiential learning process, its impacts on learning, and possible challenges in using this approach. This paper highlights the use of experiential learning in the 4-H Youth Development Program, the youth outreach component of land grant universities in the United States.

INTRODUCTION

A major assumption behind educational policy in the United States has been that the school setting is the only place where and when children learn (Harvard Family Research Project, 2007). Formal education has often been perceived "as the most important component in a young person's education" (Skuza and Russo, 2008, p. 107). Yet, most learning takes place outside of the formal school setting (Falk and Dierking, 2010). There is growing awareness of the role informal/nonformal education programs have in making a substantial contribution to one's education (Bell et al., 2009). If this is the case, the U.S. can no longer rely solely on the K-12 formal school system to build and nurture the skills youth need in order to be successful in today's world (Bell et al., 2009; Carlson and Maxa, 1998).

The 4-H youth development program is the youth outreach component of land-grant universities, the Cooperative Extension System, and the United States Department of Agriculture (USDA). The 4-H youth development program is the largest youth-focused organization in the United States and utilizes nonformal educational practices as a means to reach youth (Russell, 2001). Guion and Rivera (2008) describes 4-H as having three main features: 1) youth participation and leadership, 2) positive adult-youth relationships, and 3) skill building activities. The development of life skills has been an integral part of positive youth development programs within the 4-H program, which has helped youth learn important life skills through project work, civic engagement, leadership opportunities, camping, and competitive activities. Youth typically join a local 4-H club in order to get involved in these experiences.

The 4-H program promotes the use of experiential learning in its youth programs and curricula (Carlson, 1998; Enfield, 2001; Fox, Schroeder, and Lodl, 2003; Guion and Rivera, 2008; Norman and Jordan, 2009; Russell, 2001). The 4-H program centers on the notion that "youth learn best when they are actively involved in relevant, real world situations" (Carlson, 1998, p. 44). Enfield (2001) added that the experiential learning model was adopted by 4-H because of the "belief that children learn best when they are actively engaged in authentic and meaningful tasks and are carefully guided in reflection on their experiences" (p. 7). As a result of this learning process, 4-H youth are more self-directed and have the ability to make their own choices within the learning environment (Carlson, 1998). But what is experiential learning and how does it help youth learn? How does it go beyond "hands-on learning"?

EXPERIENCE AND MEANINGFUL LEARNING

John Dewey (1938), a noted educational philosopher, believed that all genuine education comes about through experience. Beard and Wilson (2002, p.17) stated that "the foundation of much learning is the interaction between self

and the external environment," that is, an experience. Dewey (1938) described learning experiences as lying on an "experiential continuum" where at one end learning is controlled by an authority, and at the other end lies "freedom in education" (p. 28). Carl Rogers (1979) described two general types of learning that lay on opposite ends of a "continuum of meaning" (p. 3). At one end is learning related to what he called "non-sense syllables" (p. 4). To the learner, these syllables and associated tasks have no real meaning and must be memorized. On the opposite end is more significant or meaningful learning that happens when experiences involve self-discovery and a person's thoughts, feelings, and senses. Thus, not all learning experiences are equal nor lead to meaningful learning.

Then how does one define learning? In reality, multiple definitions exist. Kolb (1984) defined learning as the "process whereby knowledge is created through the transformation of experience" (p. 38). Woolfolk (2010) defined learning as a relatively permanent change in an individual's knowledge or behavior as a result of an experience. Ormrod (2012) described meaningful learning as occurring when a learner is able to recognize a relationship between new information and something that was previously known by the learner but stored in long-term memory. Etling (1993) described learning as meaningful when learners incorporated new knowledge, skills, or attitudes into their own values and behaviors. With these definitions in mind, educational activities should be designed so that they lead to meaningful learning.

HOW YOUTH LEARN

Increasing evidence shows that young learners learn best when they are actively engaged physically, mentally, and emotionally in an activity or experience (Horton, Gogolski, and Warkentien, 2006; Richardson, 1994). Halpern, Heckman, and Larson (2012) described that learners learn best when: 1) they focus only on a few things at a time; 2) when the purpose of the activity is clear; 3) when they play an active role; and 4) when it occurs within a social context. Learners also need opportunities to engage in a variety of activities that interest them (Theokas et al., 2006). Active participation in such experiences often utilizes a person's multiple senses, such as hearing, touch, and smell, thus enhancing the learning potential of an experience (Millard, 2008). Wigginton (1986) added that for best learning to occur, the learner must be the one who processes the experience. Research has also supported the idea that youth learn better when they have supportive, mentoring relationships with other adults in a climate of caring, trust, and respect for the learner (Bogenschneider and Olsen, 1998; Guion and Rivera, 2008; Perkins and Butterfield, 1999). Thus, how and where learning occurs (context) are important considerations in the learning process.

DEFINING EXPERIENTIAL LEARNING

Experiential learning, or learning through experience, has gained increased recognition over the years and has been used in various educational settings in different forms and for different purposes. According to Knapp (1994), the foundations of experiential learning date back to the beginning of the 20th century and share a common philosophical base with outdoor education and the progressive education movement developed and promoted by John Dewey.

The Association for Experiential Education (2014) distinguished between experiential learning and experiential education and defined the latter as "a philosophy that informs many methodologies in which educators purposefully engage with learners in direct experiences and focused reflection in order to increase knowledge, develop skills, clarify values, and develop people's capacity to contribute to their communities." That is, the role of the experiential educator is to help the learner make meaning of their experience, make the experience relative to their lives, and help learners apply what they learned to another similar, yet different, situation, in order to develop their capacity as learners. Experiential learning, on the other hand, involves the acquisition of knowledge, skills, attitudes, and values by the learner (Smith and Knapp, 2011). Beard and Wilson (2006) defined experiential learning as the "sense-making process of active engagement between the inner world of the person and the outer world of the environment" (p. 19). Thus, a key component of experiential learning has been the presence of a concrete experience in which the learner is directly engaged with the external phenomena being studied.

BEHAVIORISM, CONSTRUCTIVISM, AND EXPERIENTIAL LEARNING

Behaviorists have viewed education as the "applying of appropriate external methods and techniques that evoke appropriate responses," such as socially acceptable behavior, recall of information, gaining a skill, or others (Simmons,

1995, p. 124). Delay (1996) described that behaviorists have commonly assumed that students learn because teachers teach or that the program did something to the learner. He added that this treatment likely ignores the prior experiences or understandings of the learner and does not account for how the content is processed on a cognitive level. Delay (1996) explained that although all schools of learning theory suggest that behavior changes through learning, perhaps the real question is who should be the change agent in the learning process?

Experiential learning starts from a different set of assumptions than behaviorism and falls more in line with constructivism (Kolb, 1984). Constructivist learning theories have presented an epistemological foundation for what practitioners describe as occurring in experiential education (DeLay, 1996; Doolittle and Camp, 1999; Simmons, 1995). Constructivism, therefore, agrees that learners play an active role in creating their own knowledge, and that an experience (both individually and socially) is important in this knowledge creation process. Kolb (1984) believed that ideas are not fixed nor immutable but are formed and reformed through an individual's experience. In contrast to behaviorist models, constructivist learning places the action of learning with the learner (DeLay, 1996). From a pedagogical point of view, a person learns not because teachers teach them, but because they have taken prior knowledge and reworked it based on new knowledge and experiences (DeLay, 1996). That is, learners construct meaning from their own experiences.

Doolittle and Camp (1999) emphasized the social nature of knowledge. In their view, the acquisition of knowledge is the result of social interaction and communication. Thus, knowledge is a shared rather than an individual experience. They also provided eight essential principles as part of the constructivist pedagogy to help link theory and practice:

1. Learning should take place in authentic and real-world environments.

2. Learning should involve social negotiation and mediation.

3. Content and skills should be made relevant to the learner.

4. Content and skills should be understood within the framework of the learner's prior knowledge.

5. Learners should be assessed formatively, serving to inform future learning experiences.

6. Learners should be encouraged to become self-regulatory, self-mediated, and self-aware.

7. Educators should primarily serve as guides or facilitators of learning, not instructors.

8. Educators should provide for and encourage multiple perspectives and representation of content.

Carlson and Maxa (1998) provided that a constructivist perspective implies two outcomes for nonformal learning settings, such as 4-H. First, youth develop better abilities to apply their knowledge to their daily lives, and secondly, youth become more independent thinkers and self-motivated.

CHARACTERISTICS OF EXPERIENTIAL LEARNING

Joplin (1981) clarified the philosophy of experiential education by describing eight characteristics of the process.

1. Learning is personal – The learner as a feeling, valuing, and perceiving individual is stressed.

2. Experiential learning is both process and product oriented – How a student arrives at an answer, and not just the answer itself, is considered important.

3. Evaluation for internal and external reasons – The internal (or self) evaluation of an experience for the learner, and not just the external evaluation done by educators, is important.

4. Holistic understanding and component analysis – The analysis of experiential education phenomena involves both holistic and descriptive methods to study experiential learning qualities, as well as statistical equations.

5. Organized around experience – Learners develop meaning from an experience. Joplin felt it was important to enlist learner participation in choosing topics, thus organizing courses around learner's own experiences.

6. Perception-based rather than theory-based – Allows learner to express or explain a subject rather than recite an expert's claim or testimony.

7. Individual based rather than group based – Stress is on the individual's development and growth.

Similarly, Kolb (1984) described four propositions of experiential learning.

1. Learning is best conceived as a process, not in terms of outcomes. This emphasis distinguishes experiential learning from traditional or behavioral theories of learning.

2. Learning is a continuous process grounded in experience. The learner continuously "tests" knowledge through new experiences. That is, new experiences build on past experiences.

3. The process of learning requires the resolution of conflicts between dialectically opposed modes of adaptation to the world. That is, learning occurs as a result of the resolution of conflict between concrete experience and abstract concepts and from the conflict between observation and action (Kolb, 1984).

4. Learning is a holistic process of adaptation to the world. Learning does not solely involve the human function of cognition or perception but integrates the total being to include thinking, feeling, perceiving, and behaving.

EXPERIENTIAL LEARNING IN NONFORMAL EDUCATION PROGRAMS

Informal learning environments have been generally found outside of school settings and include informal and nonformal education (Bell et al., 2009). Informal education has been described as spontaneous or incidental learning that occurs through everyday experiences that are not planned or organized, such as, interactions with friends, family, and nature (Etling, 1993). Nonformal education has been defined as "any organized educational activity outside the established formal system…that is intended to serve identifiable learning clientele and learning objectives" (Coombs, 1973, p. 288). Nonformal education can take place anywhere in a community, such as a club meeting, summer camp, after school programs, competitive event, community event, or in youth projects (Russell, 2001).

Skuza and Russo (2008) offered that youth programs outside of school provided great opportunities to foster learning. These environments typically provide a safe, non-threatening venue for engaging youth in the learning process (Bell et al., 2009). These environments typically allow learners to choose what they want to learn and are often designed around the interests, culture, and competence of the learner (Bell et al., 2009). These environments have allowed youth to be themselves, pursue interests, and make friends (Skuza, 2005). Nonformal education programs are often contextually relevant, collaborative, and voluntary (Bell et al., 2009). A fundamental belief in nonformal education programs has been that youth want to take responsibility for "what and how they want to learn" (Carlson and Maxa, 1998). Thus, activities have often been more community-based and youth-driven than formal education (Russell, 2001).

Russell (2001) described experiential learning as often being used in nonformal education programs, like 4-H, because the process provides the learner with personal choices, the ability to develop personal relationships, and the opportunity to work collaboratively with others. Having choices has enabled learners to develop important life skills, such as critical thinking and decision making (Russell, 2001). Hamilton (1980) added that the use of experiential learning can enhance job skills, community involvement, and career orientation. Bourdeau (2004) believed experiential learning approaches could be used to help youth achieve greater science literacy.

Others have noted that using experiential learning approaches in nonfomal education programs have enabled young people to make meaning of their past experiences by providing them with opportunities to process and apply what they have learned to new experiences (Millard, 2008; Skuza and Russo, 2008). Beard and Wilson (2006, p. 2) stated that "active engagement is one of the basic tenets of experiential learning" but to achieve lasting learning, a person's cognition, behavior, and emotions also need to be addressed. Kolb (1984) believed that experiential learning provides a way to examine and strengthen the connections between a person's education, work, and personal development.

EXPERIENTIAL LEARNING IN THE 4-H YOUTH DEVELOPMENT PROGRAM

Basic Structure of the 4-H Program

Although multiple delivery systems have been used to provide 4-H programs to youth audiences (e.g., clubs, after school programs, school enrichment programs, camping programs), the 4-H club has been the traditional model for 4-H program delivery. Experiential learning has been best practiced and observed in the 4-H club setting because it has offered youth a longer, more supportive, and more positive nurturing environment compared to the other delivery systems in 4-H (Fogarty et al., 2009).

In addition, most 4-H project materials used by clubs have integrated experiential learning approaches into the curriculum (Enfield, 2001). Project curricula have provided youth with opportunities to be active participants in their own learning (Guion and Rivera, 2008). Club projects offer youth the opportunity to build and enhance their skills over several years (Van Horn, Flanagan, and Thomson, 1998). Club youth have been viewed as "self-directed learners" who take responsibility for what they want to learn (Enfield, 2001). Club members have been able to choose projects based on their own personal interests (e.g., animal science, environmental science, shooting sports, robotics, etc.).

A 4-H club typically consists of five or more youth guided by one or more adults. Club youth range from 5-18 years of age. Club members elect their own officers, conduct business meetings, form committees, engage in community service, plan field trips, give public presentations, and compete for awards and scholarships (Reck, 1951). Using elected officers has allowed youth to learn various leadership and communication skills over time (Van Horn, Flanagan, and Thomson, 1998). As club members grow and gain experiences through committee work, they are given more responsibility in the club (Carver and Enfield, 2006). The goals and structure of a club have varied, depending on the needs and interests of the members, but all clubs have been expected to engage youth members in community-based, positive, structured learning experiences (online at http://florida4h.org/clubs/about/).

The 4-H Youth Development Program is managed by state and county faculty. However, at the county level the program depends on adult volunteers to mentor and lead youth through 4-H projects, events, and activities. The 4-H Program has relied heavily on these adult volunteers to guide the experiential learning process and to help youth learn life skills and subject matter content (Carlson and Maxa, 1998; Norman and Jordan, 2009). County extension agents have been responsible for training 4-H volunteers and providing them with the knowledge and skills necessary to manage and to conduct 4-H programs, including how to utilize experiential learning practices in their programs.

The 4-H Experiential Learning Model

Kolb (1984) described that the experiential learning process has been best managed by a skilled facilitator or teacher. A skilled facilitator helps the learner process the information gained from the experience on a deeper level (Carlson and Maxa, 1998). Within 4-H, club leaders have been expected to utilize and facilitate the experiential learning process in club programs and projects.

The "experiential learning model" (Fig. 1) was adopted by 4-H in the late 1970s (Carlson and Maxa, 1998) from models described by Kolb (1984) and Pfieffer and Jones (1985). The 4-H Program has relied heavily upon this experiential learning model to help youth learn life skills and subject matter knowledge (Norman and Jordan, 2009). Through this model, youth are able to guide their own learning and discovery. Within 4-H these steps have often been referred to as a "do, reflect, apply" approach to learning. Although variations exist, the five steps of the experiential learning model have been described as follows (Norman and Jordan, 2009):

1. Participants experience the activity by performing or doing it. This step requires the leader to select a concrete, hands-on activity that focuses the attention on the learner rather than the leader or teacher. The leader does not direct the activity but provides guidance as the learner "experiences" the activity. Leaders are encouraged to let youth figure out how to do something themselves before sharing their knowledge with youth.

2. Participants share the experience with others by describing what happened or what they did. This phase requires the leader to ask questions, such as: What did youth do? What did they learn? What did they see or feel? What was difficult? What was easiest?

3. Participants process the experience to determine what was most important and to identify common themes. In this phase, questions and discussion focus on the process of the experience or activity. The primary purpose of

processing is to help youth construct meaning from the experience. Questions have included: What steps were involved in doing the experience/activity? What problems or issues came up and how were they addressed or solved?

4. Participants generalize from the experience and relate it to their daily lives. In this phase, the questions focus on what the experience meant to the youth and what they learned from it. These questions may focus on the subject matter and/or the life skills that were practiced as a result. Questions have included: How did what they learn relate to other things they have been learning? What similar experiences have they had?

5. Participants apply what they have learned to a new situation. Questions have included: How does what they learned relate to other parts of their lives? How can they use what they learned? How can what they learned be applied to future situations?

Leaders facilitating the process need to be very aware of the stage or step of the experiential model youth are working in and be prepared to ask the right questions at the right time (Norman and Jordan, 2009). Carlson and Maxa (1998) cautioned that experiences only lead to true learning if the child understands what happened in the experience, is able to observe patterns that emerged, makes generalizations from these experiences, and then has an opportunity to apply this new knowledge to a similar, yet different situation. Providing youth with time to explore, to talk about, and to reflect on their choices or decisions has been an important avenue for feedback (Carlson and Maxa, 1998). This "debriefing" of the experience moves an experience from being just a "hands-on" activity to a truly meaningful learning experience.

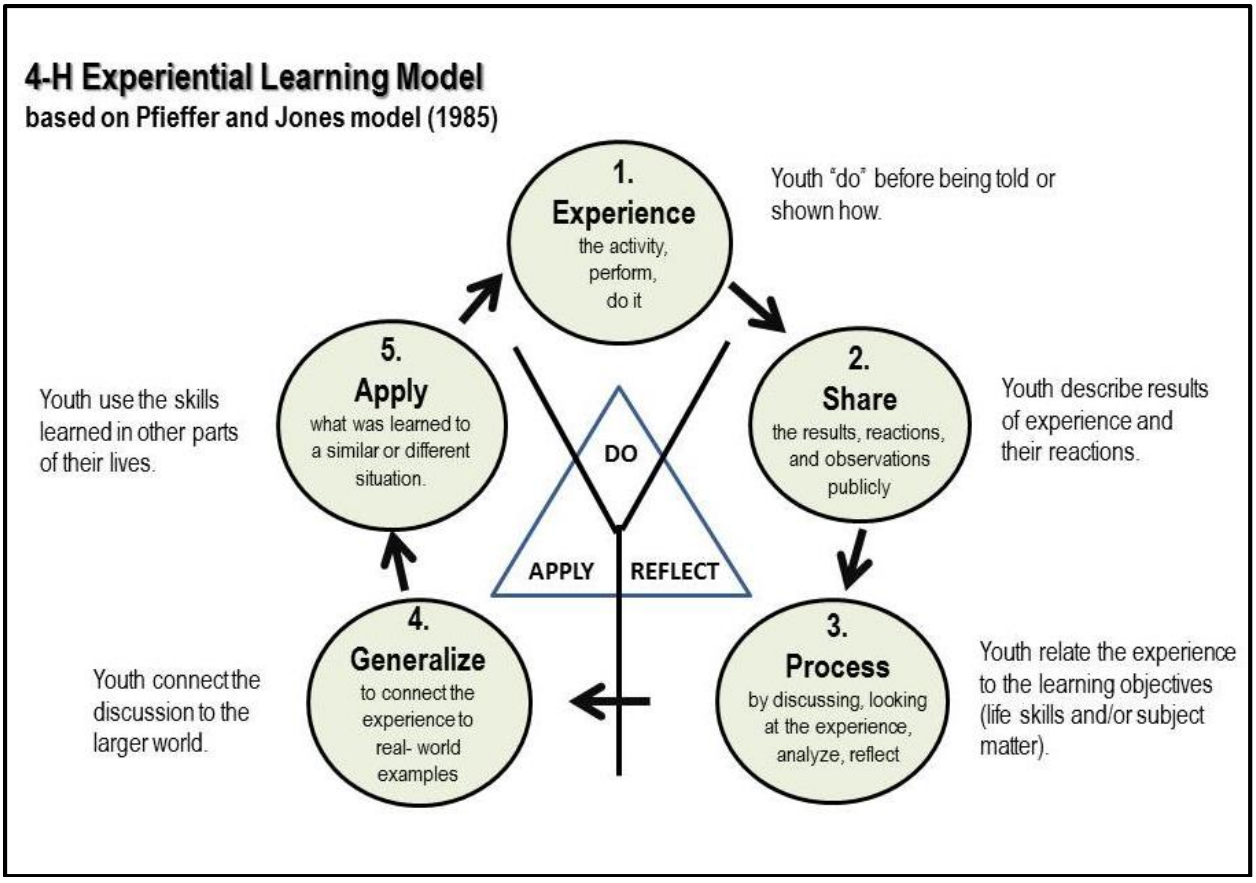

Fig. 1. The 4-H Experiential Learning Model.

CHALLENGES

As important as experience is in the learning process, the use of experiential learning in youth education and development programs presents a number of challenges and criticisms. One concern is that student-centered learning, where the emphasis is on creativity, experience, self-discovery, awareness, and freedom, might lead to a lack of direction in learning (Colin and Beard, 2006). Yet experiential learning should be a guided process for best learning outcomes and based on clearly defined objectives. Even then, the outcomes of an experience may vary from what was planned since each learner may perceive the experience differently. Some topics or concepts may not fit an experiential learning approach as easily as others, especially when abstract phenomena are the focus of the learning experience (Colin and Beard, 2006). Finally, what each person learns from their own experiences forms their worldview. This may or may not reflect what is viewed as reality by others.

CONCLUSION

Experiential learning has been widely embraced as an effective and beneficial educational approach for youth and makes learning more relative to the real world of the learner. Non-formal education programs have long promoted the use of experiential learning because of its holistic approach to learning (Joplin, 1995). The 4-H Program has long embraced the use of experiential learning approaches to foster positive youth development. Effective use of the experiential learning process has required that the process be guided by a skilled facilitator. Within the 4-H program, the club leader who provides most of the teaching for club youth is expected to guide the experiential learning process. As a result, youth gain greater skills and knowledge through community-based, positive, structured learning opportunities during their development years.

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