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Connections Between 4-H and John Dewey's Philosophy of Education

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This paper will explore how the 4-H Youth Development Program is based on and conducted in a manner consistent with the philosophy of experiential education and Dewey's principles of interaction and continuity. Necessary for any attempt to understand the complex and widely misunderstood 4-H Program is a short presentation on the relevant history of 4-H which pertains to the exploration of Dewey's influence on the program. It is within the context of the 4-H club, and especially within the 4-H project group, that the components of experiential education and Dewey's principles of interaction and continuity are played out. Then, the components of experiential education and the principles of interaction and continuity will be explored in relation to segments of the 4-H Program. Finally, ideas for strengthening the links between the 4-H Program and concepts of experiential education and Dewey's idea of an "experience" will be presented.

4-H History and Background

The origins and history of the 4-H Program are as complex as is the program structure. There is no one individual or one location that pinpoints the beginnings of the 4-H Program; there are numerous individuals and locations and stories. In 4-H circles, it is commonly accepted that the 4-H Program was founded through the collective efforts of several individuals over the course of a decade (Reck, 1951). These components of 4-H history are important for an understanding of the influences on 4-H that remain in place today.

As a response to the concerns that rural families were feeling and expressing about the irrelevance of the instruction that their children were receiving, the antecedents of 4-H Programs began to appear in the late 1890's and the early 1900's in numerous locations throughout the United States (Hinshaw, 1935; Reck, 1951; Wessel & Wessel, 1982). The concerns seem to have revolved around two issues, which were: 1) the lack of an appreciation and understanding of nature, and 2) the lack of meaningful agricultural education. Parents in rural areas expected schools to provide what they considered to be practical education for their children, and they felt that schools were falling short.

At the turn of the century, Dr. Liberty Hyde Bailey, educator and naturalist from Cornell, wrote about how rural schools seem to "unfit the child to live in its normal and natural environment," (Reck, 1951, p. 7). Beginning in late 1896, Bailey began to publish *Nature-Study Leaflets* for distribution throughout New York State, which may have been a response to what was not being taught in rural schools. The leaflets became extremely popular among young people, and Bailey started Nature Study Clubs at the turn of the century. The very

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popular clubs aimed to help young people in rural areas get to know and appreciate their environment. Bailey also "urged practical agricultural education for young people and the development of new, young rural leadership" (Rasmussen, 1989, p. 172). This approach spoke to the concerns for practical and relevant education being voiced by parents in rural areas.

"What a man hears, he may doubt; what he sees, he may possibly doubt, but what he does, he cannot doubt."
–Seaman A. Knapp

Around this same time, young people became engaged in a variety of Boys and Girls Agricultural Clubs, such as Corn Clubs, Hog Clubs, Canning Clubs, Gardening Clubs, and Tomato Clubs. Unlike 4-H Programs today, youth were separated by gender into Corn Clubs for boys and Tomato Clubs for girls during the start-up years of 4-H (Reck, 1951; Wessel & Wessel, 1982). It is this type of Agricultural Club, or some form thereof, that most people recognize as the "true" predecessor of today's 4-H Club. This is probably a result of the many clubs that sprouted up in numerous locations throughout the nation at that time. In addition, this "community club" format engaged young people through "learning by doing" (Reck, 1951), and this same model, with improvements, continues today.

Many of these Boys and Girls Agricultural Clubs, even the ones referred to as School Agricultural Clubs, elected youth as officers, met regularly outside of school where members gave reports on their various projects, gave demonstrations, shared project progress reports and made plans for outings and exhibitions (Reck, 1951). The members of the club performed their work at home and on the farm, except when the group came together on exhibition days and county or state fairs. These large public events allowed youth the opportunity to share their work and results with others in their communities.

In the early stages of these clubs, school superintendents or USDA Agricultural Demonstration Agents organized the clubs and often worked directly with the youth. In fact, Farmers Institutes around the county worked with school superintendents to promote crop production and numerous related contests and projects. After just a few years, parents of rural children were acting as the volunteer leaders or teachers of clubs and USDA Extension Agents provided training and materials. Rasmussen (1989), along with others, believes that in essence, the Boys and Girls Agricultural Clubs were the "building blocks for Extension." Among Extension Educators, it is common knowledge that these Boys and Girls Agricultural Clubs and then 4-H Clubs were sometimes, and maybe often, started by USDA/Extension personnel in order to bring about change in adult behavior. The early leaders of the club model certainly saw the need for practical programs for youth, and they also began to realize that parents would become interested and involved if their children were involved in adopting new and more efficient farming/ranching/home economic practices (Rasmussen, 1989).

There are numerous stories that have been documented of early efforts by Extension Educators to reach/teach/show adults through the work and successes of boys and girls in their clubs. One of the best known stories is that of Seaman A. Knapp, often referred to as the "Father" of Extension (Richardson, 1994). As early as 1903, Knapp, working as Special Agent in the USDA Office of Farmer's Cooperative Demonstration, encouraged the formation of Boys and Girls Demonstration Clubs. From his many years of experience, Knapp knew that farmers would not alter their farming practices by reading agricultural pamphlets or even viewing demonstration plots at government-sponsored farms. He knew that convincing farmers to change would involve demonstrations on their farms, conducted by Extension Educators or the farmers' own children. Knapp stated that: "What a man hears, he may doubt; what he sees, he may possibly doubt, but what he does, he cannot doubt" (Rasmussen, 1989, p. 35). In fact, it may be that Seaman Knapp wrote about the value of hands-on experiences before Dewey wrote about his beliefs on hands-on experiences.

As a result of Knapp's beliefs, power and influence, the Demonstration Model in Boys and Girls club work and Extension came into being. In fact, the concepts of demonstrations and displays were adopted very early on as central methods in 4-H work (Peters, 1999; Scott, 1971). Also, quite notably, youth involvement was essential to this early demonstration model. In fact, Peters suggests since "youth were often more eager than adults to try new methods and ideas, they played a leading role in the demonstration work" (Peters, 1999, p. 21). Young people were involved in a type of demonstration referred to as a "result demon-

stration." This type of demonstration, as reported by Rasmussen (1989), involves a substantial time commitment and includes reports with results and comparisons. Raising a hog or a calf are examples of result demonstrations. Extension and 4-H historians now discuss Knapp's early stages of this demonstration method as not only being based on the educational principle of "learning by doing," but hold it up as a practical application of the experiential education theories of Liberty Hyde Bailey, John Dewey, Johann Pestalozzi, and others (Peters, 1999).

In his article on Cooperative Extension and experiential education, Richardson refers to Knapp as "perhaps the most well known proponent of learning by doing," while also acknowledging John Dewey as a "strong proponent of experiential opportunities being provided as a critical component of the education process" (Richardson, 1994, p. 1). Wessel and Wessel seem to create a loose link between 4-H and John Dewey when they write about the influence of his "approach to education as a combination of abstract instruction and learning by doing" (Wessell & Wessell, 1982, p. 2) during the time of the early development of the 4-H Program.

Many individuals, including Booker T. Washington (the first black Extension Agent), and O.B. Martin (another pioneer of the demonstration method) were part of the historical movement creating club programs and 4-H (Wessell & Wessell, 1982). As a result of the work of early Extension Agents, the demonstration method involving meaningful and real-life activities, was ultimately being utilized all over the United States (Reck, 1951; Wessell & Wessell, 1982). By the 1930's, the early beginnings of 4-H had blossomed into a movement which had over 800,000 boys and girls enrolled in clubs all over the United States, with growth of approximately 10 percent each year (National Committee of the Land Grant Colleges, 1935).

At the heart of the 4-H program then, as it is today, was the goal of personal development for the youth involved, as well as improvement in their families, communities and beyond (Center for 4-H Youth Development, 1995; National Committee of the Land Grant Colleges, 1935; Peters, 1999). Because of this belief, youth involved in 4-H clubs throughout the country have participated in thousands of projects that have influenced their personal lives and the lives of their families, and have impacted their communities as well. This public and personal impact has extended the impact of 4-H far beyond the early focus of demonstration projects on farm, ranch and home.

The tradition of "learning by doing" stemming from the original demonstration projects in 4-H continued through the decades and is still the backbone of the 4-H Youth Development Program in the 21st century. Opportunities to interact with members of the community in relevant and contributing ways enhance the self-esteem of participants, increasing their confidence, as well as their standing in the community. Today, young people in 4-H continue to participate in "learn by doing" projects that are both educational and relevant to their lives in the real world.

4-H Program Structure

To understand how learning takes place in 4-H Programs, it is important to be familiar with the different segments of 4-H and how they are structured and operate. Even though the ages of 4-H members have changed somewhat over the years, and the beginning age and ending age requirements may be different in various states, in general, the youth involved in 4-H Programs are from five to nineteen years old. Very often, the younger or primary members (those from five to eight years old) participate differently than the older youth, especially in terms of competitive events, project involvement and awards. No matter what the age, the youth belong to 4-H on a voluntary basis (except of course, for parent/grand-parent/guardian coercion). Actually, from the author's experience, it is somewhat rare that adult control keeps a child in 4-H.

4-H Clubs

Many 4-H members belong to a 4-H club of some sort. These clubs are usually neighborhood or community-based and are run by the youth officers, who are elected by the youth members of the club. The officers are assisted or provided guidance by an adult volunteer leader; very often this is the person who is recognized as the 4-H Community Club leader. Within the structure of the club, youth members, usually with volunteer adult assistance,

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form and volunteer for committees to conduct club events – such as fundraising activities, membership drives, field trips, family nights, food drives, community clean-ups and beautification activities, clothing and toy drives for homeless children, recycling days, and so on.

Usually it is the older youth members of a club who act as the elected officers and chairs or co-chairs of the various committees. Younger members begin to serve on committees in various capacities and are increasingly given more responsibility as they gain experience and their organizational and leadership skills progress. Ideally, all of the members who are in leadership roles (officers and committee chairs) are working and processing under the direction and guidance of an adult leader. The main focus of the "club" component in 4-H is on the development of leadership skills and citizenship skills. The extension of the 4-H club is the project group, where members come together with an adult leader to explore particular subject matter areas.

4-H Projects

The 4-H project group is extremely important in the life of a 4-H member. All 4-H club members participate in at least one project group, and many youth in 4-H participate in several projects at any one time. In some states, 4-H Programs may focus on "project clubs" rather than the 4-H club structure presented above. In this case, 4-H project clubs operate very much like the standard 4-H club, electing officers and forming committees. Another similar structure is the 4-H special interest group, which is usually centered on a particular project area for an abbreviated length of time compared to standard 4-H projects.

In 4-H, youth take responsibility for what they want to learn by enrolling in the various 4-H projects that they are interested in. Carlson and Maxa (1998) refer to this as part of the "youth-driven model," which they say is a "fundamental belief" of true nonformal education programs for youth. In other words, the millions of 4-H members around the country are acting as "self-directed learners." They choose the project area because of interest and possible relevance to their vision of their future, and often as a result of other internal motivations (Carlson, 1998). This is very different from the school model. As members' interests change or expand, they can choose to become involved in new projects at any time. Most 4-H project groups meet from eight to twelve times over the course of the project, which may be anywhere from two to ten months. 4-H members may explore not only within their 4-H projects, but also through their 4-H projects.

In 4-H, young people can choose from approximately 100 projects in eight cluster areas. The areas include an incredibly wide range of subjects; aviation and rocketry, animal science, citizenship, clothing and textiles, computers, electric environmental studies, fishing, food and nutrition, forestry, graphic arts, health and physical fitness, leathercraft, photography, plant science, science and technology, veterinary sciences, and wildlife, are just a small portion of the projects offered. In fact, a 4-H member or group of 4-H'ers may design their own project. It is true that *4-H is…more than you ever imagined*, to use the current national 4-H theme.

Regardless of the project, there are project group activities that all members take part in and gain life skills that are transferable across projects. For example, all 4-H'ers keep records of their project work during the year and from year to year, commonly referred to as 4-H record books or portfolios. Also, it is through their project group activities that members develop their presentations or demonstrations, and then present them in a variety of public settings. In discussions with hundreds of adults who were 4-H members, these two activities are the ones most often mentioned as most meaningful in their personal development and relevant to their current lives. So, not only do 4-H members develop life skills that are transferable across 4-H projects, but they also develop many life skills that are transferable to their present and future lives.

4-H members join a 4-H project group and usually remain a member of that project for at least the time it takes to complete one or more tangible projects – in the case of a woodworking project, it may be a tool box, which may be displayed at a 4-H Project Display Day and then at a county fair. The next year, the member may choose to join the woodworking project group again to use her/his knowledge and skills gained in the first year and gain new and more knowledge and

skills. Maybe the member will design and construct a bench the second year and a table or other more intricate item the next year. The member may be a part of the woodworking project group for as long as she/he remains a 4-H member. In fact, from the author's experience, many members do remain active in a project for multiple years, sometimes as much as six years and beyond; this seems to be especially true with the livestock projects.

One thing that seems to bring members back to a particular project from year to year is the successive or increasingly more complex curricula. As the member grows and develops, increasing knowledge and skills, the curricula and other project materials and activities also increase in complexity. If the 4-H leader does her/his job correctly, the member remains challenged and therefore, interested. Often, as adults, former 4-H members return to the program as 4-H volunteer leaders in order to mentor the younger generation in developing similar skills.

A very important component of 4-H project work is the Junior and Teen Leadership program. As members progress through a particular project, developing knowledge and skills, as well as developing leadership skills through 4-H club involvement (committees, officers, etc.), they can volunteer to play an important role in a project group. This new and expanded role is in addition to or in the place of being a regular project group member. By completing a "plan of report" and securing the 4-H leader's approval, a member may become a junior leader or a teen leader in a project. Whether a junior or teen leader, the member helps lead the project by working with the other members. A junior leader assists a project leader with the project group instruction. A teen leader is responsible for leading the instruction of the group, with the guidance of the adult 4-H volunteer leader. So, using the example of the woodworking project member presented above, she/he may decide to become a junior leader one year in the project and, in the following year, may become a teen leader.

Another reason for remaining in a particular project is the particular project leader. As Dewey (1938) discussed, the role of a teacher (or in the case of 4-H, an adult volunteer leader) is to create an appropriate environment for students (members) to learn, and to provide guidance for the students (members) to help make their interactions with the environment positive and meaningful. A 4-H leader who manages to keep the 4-H members interested and motivated also seems to keep 4-H members coming back from year to year. The critical role of the 4-H volunteer leader will be discussed further in the section below on experiential education.

Continuity and Interaction and Experiential Education in 4-H

Dewey (1938) discussed what he meant by an "experience" in *Experience and Education*. In describing an experience and what determines the quality of an educational experience, Dewey presented two principles – the principles of interaction and continuity. He stated that these two principles "are not separate from each other" and when taken together, they "provide the measure of the educative significance and value of an experience" (Dewey, 1938, pp. 42-43). The *principle of continuity* "means that every experience both takes up something from those which have gone before and modifies in some way the quality of those which come after" (Dewey, 1938, p. 27).

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The *principle of interaction* states that an individual's experience results from the interaction between self and the environment. Dewey states that there are two factors in experience – objective experience and subjective internal conditions and "any normal experience is an interplay of these two sets of conditions" (Dewey, 1938, p. 39), which Dewey called a "situation." In discussing Dewey's *principle of interaction*, Carver states that students' perceptions of and reactions to the objective factors are influenced by internal and subjective factors such as their attitudes, beliefs, habits, prior knowledge, and emotions (Carver, 1998). Basically, learning is individual and subjective, and individuals often learn best through personal interaction with the environment.

The author believes that Dewey's *principles of continuity and interaction* are played out time after time in the 4-H Program for many 4-H members. For example, in the 4-H club structure, as presented above, 4-H members of all ages have numerous opportunities for successive experiences in the areas of leadership and citizenship development. Leadership and civic involvement is occurring all around them, and a member, whenever she/

he is ready to jump in and get involved, may do so. In fact, the member who raises her hand for the first time to volunteer as a committee member probably knows to do this because she has seen many of her 4-H colleagues do so to get involved. She probably has waited to raise her hand until a specific committee or other function sparked her interest and action – possibly a winter jacket drive for children in homeless shelters excited her and moved her to action, or a doggie wash day fundraiser was the motivating force, or a good friend or friends volunteered to be on the committee. There are dozens of opportunities for meaningful involvement throughout the 4-H year.

Her journey in the arena of leadership and civic involvement, and the experiences she calls on and continuously modifies, probably will continue throughout her life.

Once the member becomes involved in the committee, she continues the process of her educational experience by continuously gaining and modifying bits of information. Also, the interaction with her environment in this situation – in this case, her peers, the youth chairperson and an adult leader providing guidance to the committee – contributes to the "overall educative significance and value" of the experience. Once the work of this committee is completed, the 4-H'er will soon have another opportunity to use her new skills in leadership and civic involvement in another committee. Possibly soon she will be a co-chairperson and then a committee chairperson – all the while the principles of continuity and interaction will be playing out as she lives her experiences. Her 4-H leadership experience may culminate in her serving as president of her local 4-H club, or she may become involved beyond the club and be part of the 4-H volunteer management organization at the county level or she may be a 4-H ambassador at the county or state level. Later on in life, after her 4-H career is over, she may remember favorably all of her leadership experiences as a 4-H'er and decide to become involved in her community (e.g., PTA committee chair, Neighborhood Watch coordinator, city tree committee member, 4-H leader), as discussed by Putnam in *Bowling Alone* (2000). Her journey in the arena of leadership and civic involvement, and the experiences she calls on and continuously modifies, probably will continue throughout her life.

Describing the evolution of a 4-H presentation can show another example of Dewey's *principles of continuity and interaction* playing out in the life of a 4-H member. A recent example from the author's county can illustrate the connection. A middle-school student has been involved in a science and technology project exploring the effect of phytoplankton on a local estuary. He has worked, under the guidance of an adult project leader, on the project for several years, interacting with the watershed, estuary and bay in numerous different ways. He first learned about a watershed using a hands-on 4-H curriculum. He has searched for insects in streams that help tell a story about the health of a stream; he has helped to build a 12' x 12' scale-model of the watershed being studied; and he has helped others in the project do water sampling over a period of months from a Coast Guard ship. This past year, he used all his gained knowledge from his interactive experiences with the estuary environment to prepare a 10 minute 4-H presentation for delivery at the countywide 4-H Presentation Day. His "supersleuth" presentation on the effects of phytoplankton on the bay was well received by the audience and judges, but the judges felt that the 4-H member was "in a bit over his head" when he was describing some of the aspects of the impacts of phytoplankton and in answering follow-up questions from the audience and judges (note: the questioning period is a standard part of a 4-H presentation). After receiving very constructive written input from the judges, the member had to decide whether to take his presentation to the next (i.e., regional) level. After considering the judge's comments, his feelings, his knowledge and the time frame, he decided to rework his presentation and offer his revised presentation at the regional event.

Certainly, the *principles of continuity and interaction* were in play during the entire evolutionary process of this 4-H member's presentation. This learner was totally engaged with the local estuary and interacted with other interested parties leading to his ability to exhibit a high degree of thought, awareness and self-motivation throughout the entire experience.

It is the author's opinion that the two scenarios presented above are indicative of the many types of high-quality educational experiences that 4-H members undergo during their 4-H careers. Many times these experiences are not only transferable across 4-H projects, from 4-H club to 4-H projects, from

4-H to school, but they are very often transferable to everyday life and to adulthood, as discussed earlier with record keeping and presentations. It is also important to note that the longer a 4-H member is active in 4-H, the more educational experiences she/he has and the more opportunities there are for the educational experiences to be of significance and of value. In 4-H, numerous structured opportunities are available for members to take part in and remain continually challenged and motivated. Also, 4-H'ers can follow their own path in the program and still remained challenged. From the author's observations, many members seem to know that they are building on and increasing knowledge as they remain in 4-H and active in projects and related activities.

In describing Dewey's theory of experiential learning, Kolb (1984) presents a graphic representation of experiential learning which stresses the points of learning that occur after each completion of a circular set of processes, identified as impulse, observation, knowledge and judgement (see Kolb, 1984, p. 23, for graphic). Each portion of the circle provides feedback for the following portion, and the cycle continues until there is a particular outcome of "purpose." Dewey states that a "purpose differs from an original impulse and desire through its translation into a plan and method of action based upon foresight of the consequences of acting under given observed conditions in a certain way" (Dewey,1938, p. 80). He goes on to describe how crucial it is to have "postponement of immediate action" so that observation and judgment can "intervene" in the cycle. Without this intervention, the experiential learning model does not function as planned. In order to promote the principles of experiential learning in 4-H, Cooperative Extension/4-H faculty and county-based academic staff have been developing and promoting appropriate models for years.

In the 4-H Youth Development Program, there are currently several models of experiential learning which are used in designing curricula and in developing training for 4-H volunteer leaders (Carlson & Maxa, 1998; Horton & Hutchison, 1997; McArthur, Shields, & Zurcher, 1987; Ponzio & Stanley, 1997). Carlson and Maxa (1998) report that 4-H has promoted an experiential approach to learning since the late 1970's, and a five-step experiential model, initially based on the work of Pfeiffer and Jones (1981), evolved. From the author's experience, the five-step model is the most common model in use today in the 4-H Program nationwide. The five steps of the experiential learning cycle or model are:

- **EXPERIENCE** – youth actively participate in an activity or experience before being told or shown how
- **SHARE** – youth describe the experience and their reactions and observations
- **PROCESS** – youth process the experience by discussing specific patterns and dynamics; they analyze and reflect
- **GENERALIZE** – youth generalize to connect the experience to real-world examples
- **APPLY** – youth apply what was learned to a similar or different situation; practice.

The cycle is divided into three sectors: 1) Do: experience, 2) Reflect: share and process, and 3) Apply: generalize and apply (see Carlson & Maxa, 1998, for a graphic representation). (Note: There is some disagreement among 4-H educators on the placement of the generalize step in the apply sector and not the reflect sector. See Ponzio and Stanley (1997) for further discussion.)

The five-step experiential learning model presented above has been adopted by 4-H because of the long-held belief that children learn best when they are actively engaged in authentic and meaningful tasks and are carefully guided in reflection on their experiences. As Dewey believed and professed, providing an experience alone does create experiential learning, and educators very often neglect the reflective components of the learning process or cycle (Carlson & Maxa, 1998; Dewey, 1938; Ponzio & Stanley, 1997). Experiences only lead to true learning if the child understands what happened in the experience step, sees patterns of observations emerge and draws generalizations from the observations and understands how to apply the knowledge again in similar and different situations (Carlson & Maxa, 1998).

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In 4-H projects, it is the role of the adult volunteer leader to facilitate the learning process. Leaders can help 4-H members process new information on a higher and more meaningful or knowledge-building level by first setting the stage for youth to have experiences with a minimal amount of direction, then by asking appropriate questions

at timely points in the cycle, and finally, by encouraging true reflection. This facilitation and guidance leads to a better understanding of the new knowledge than would be the case without the leader facilitation. Carlson and Maxa believe that youth can be stimulated to embrace lifelong learning by effective leaders. In order to be effective, the leader must "be skilled in structuring the intellectual and social climate of the group so youth discuss, reflect on, and make sense of their learning" (Carlson & Maxa, 1998, p. 48). Ponzio and Stanley (1997) go beyond describing an effective leader to pointing out what results when a 4-H leader does not help guide members through the experiential cycle. They say "by not encouraging this process of inquiry during 'hands-on' experiences, youth can be cheated out of skills that encourage them to be competent and capable. Being a true leader is about sharing your worldview with the youth you work with as well as trying to understand their view of the world. Through collaboration of feelings during the sharing of experiences, we all expand our knowledge" (Ponzio & Stanley, 1997, p. 6).

If the 4-H experiential learning cycle is understood and followed by 4-H leaders as they work with 4-H members, it definitely has the effect of postponing immediate action so that observation, judgement and feedback can occur, just as Dewey wrote when discussing the meaning of purpose (1938). The 4-H leader has numerous opportunities for facilitating this deeper learning throughout each project meeting, project cycle and project year. The 4-H leader, as a result of either working with 4-H'ers for extended periods of time (sometimes years as mentioned above), or reviewing a member's extensive project records/portfolio with her/him, has broad knowledge of the many experiences that the student has had in the particular project and can lead students into new areas "which belong to experiences already had" (Dewey, 1938).

Being a true leader is about sharing your worldview with the youth you work with as well as trying to understand their view of the world.

The structure of the 4-H project, as described earlier, lends itself to experiential learning. One relevant item that has not yet been presented is how 4-H curricula promote the use of the experiential learning cycle in 4-H projects. All 4-H curricula being developed by the 4-H Cooperative Curriculum System emphasize the five-step experiential learning process. In fact, every *Project Helper's Guide* contains a bold and boxed quote attributed to John Dewey, which states: "Experiential learning takes place when a person is involved in an activity, looks back and evaluates it, determines what was useful or important to remember and uses this information to perform another activity." Even though the quote may not be exactly Dewey's, the belief in the importance of teaching and learning in a way which has Dewey's philosophy on experience and education at its foundation is very clear.

All National 4-H Activity Guides have a page devoted to the experiential learning process, which contains a graphic of the five-step model along with a brief explanation of each step. There is also an introduction to the experiential learning model, which briefly describes why the model should be an essential part of all educational experiences in 4-H. A portion of one introduction reads as follows:

"There are several reasons the five specific and sequential steps of the model work well when the objective is to combine the development of project subject matter and personal life skills in a single activity or series of related activities. The experiential learning process engages the learners in the activity, encouraging them to think more, work harder and ultimately learn more thoroughly than with traditional teaching methods such as telling or showing" (4H CCS Aerospace Curriculum Design Team, 1997).

Another project activity guide adds an additional paragraph, which reads:
"The greatest gift leaders can give is to help youth validate themselves as capable people. Sometimes that requires leaders and adults to "sit on their hands" while youth truly learn by their own doing of an activity. If parents, teachers and leaders do the work for youth, they can destroy a young person's self-esteem and the sense of worth. They can rob youth of learning by trial and error, practicing skills and becoming competent and capable" (4-H CCS North Central Region Sheep Design Team, 1994).

In addition to the information on experiential learning included on the page devoted to experiential learning, each activity in many of the *Project Helper's Guides* is presented in the five-step experiential learning cycle format. In the experience or doing section, the suggested hands-on activity is described and hints are given for the project leader to set up the

activity. Then, the next four steps are presented with sample questions for each category. So, if the leader wishes, she/he may utilize the given questions to promote both the sharing and reflection stages.

In summary, all this information on experiential learning has been highlighted in recent 4-H materials. In some instances, a step-by-step format provides 4-H project leaders a guide to follow, which includes all five steps of the experiential learning cycle. Given this attention to the experiential learning cycle, the reader might get the impression that this is the model that is used consistently by all leaders in all projects at all times. However, this is not the case.

Conclusion

In terms of knowledge of and adherence to the experiential learning cycle, the 4-H Youth Development program has had and continues to have its shortcomings. For decades, 4-H educators in the Cooperative Extension System have been preparing 4-H project manuals for 4-H members and their leaders. According to Horton and Hutchison (1997), many of the manuals have provided information to members and leaders in an experiential manner and have allowed members to participate in numerous hands-on activities in order to both practice and apply skills. However, as Horton and Hutchison (1997) explicate, most of the project manuals were really focused on training a young person to do or make something. The author believes this is a result of the continuation of the very early stages of the 4-H Program detailed earlier in the paper. Young people involved in Boys and Girls Agricultural Clubs and early 4-H Clubs were certainly involved in producing things of value to them, their families, and in many cases, their communities. As discussed throughout this paper, they were certainly involved in "hands-on" or "learn-by-doing" activities and projects. But as this paper, Dewey, and numerous other educators have discussed (e.g., Proudman, 1995), experiential education is much more than "hands-on" or "learning-by-doing." We know quite well that "hands-on" doesn't necessarily translate to an experiential process taking place, which would lead to a deep and thorough understanding and processing of the activities and experiences.

The 4-H Youth Development Program has come a long way in the past 20 years, as evidenced by the experientially based curricula discussed above. From the author's knowledge and involvement in the program since 1980, the real focus on utilizing the experiential learning cycle and other components of John Dewey's philosophy on education and experiences first came about with the development of 4-H science curricula. Along with the science curricula came extensive training workshops for 4-H leaders and teen leaders which focused on the process of working with youth in an experiential manner. These trainings were intensive, focused, experiential in nature and covered more hours (up to 27 hours over three days) than any other types of 4-H leader trainings – and, they work! If adult and teen leaders receive extensive training in the experiential learning cycle and can practice and reflect on their experience with trained leaders/facilitators, they can overcome their years of traditional schooling and prior 4-H leader experience and change their teaching habits (see Enfield, 2000, Klingborg, Smith, Enfield, Klaesius, and Laubscher, 2001, and Ponzio and Fisher, 1998, for a full discussion of such trainings).

If adult and teen leaders receive extensive training in the experiential learning cycle and can practice and reflect on their experience with trained leaders/facilitators, they can overcome their years of traditional schooling and prior 4-H leader experience and change their teaching habits.

The author feels strongly that with a true commitment from 4-H educators for continued development of experiential based curricula, *together with* the required resources for the necessary training of both 4-H educators and volunteer leaders, the 4-H Program can evolve even more than it has in the past 20 years. It can move from the half-true myth of being a program based on the work and beliefs of John Dewey and other proponents of experiential education to a program that truly has the ideals of experiential education at its core. Recent work by 4-H educators such as Carlson and Maxa (1998) on "checklists for good learning," Horton and Hutchison (1997) on the steps in developing experientially based science curriculum materials, and Ponzio (1997, 1998) for the development of experientially based 4-H curricula and for bringing the issue to the forefront, are certainly helping the 4-H Program review, rethink, and reform its beliefs and actions. ⌘

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