

Adult Learning

From Emerging Perspectives on Learning, Teaching and Technology

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Review of Adult Learning

Contents

- [1 Introduction](#)
- [2 Andragogy](#)
- [3 Variables Affecting Adult Learning](#)
- [4 Toolkit for Facilitators of Adult Learning](#)
- [5 Learning Theories Related to Adult Learning](#)
 - [5.1 Action Learning](#)
 - [5.2 Experiential Learning](#)
 - [5.3 Project Based Learning](#)
 - [5.4 Self-Directed Learning](#)
- [6 Adults Are Students Too](#)
- [7 Conclusion](#)
 - [7.1 Adults are students too](#)
 - [7.2 Training strategies](#)
- [8 Biography - Malcolm Knowles](#)
- [9 Resources](#)
- [10 Bibliography](#)
- [11 References](#)
- [12 Citation](#)

Introduction

There are conflicting perspectives on adult learning as it relates to and separates itself from early childhood development practices and overall approaches to learning. It is the belief of the authors that all styles of learning are applicable to both early childhood and adult learning, with differences presenting themselves in regard to the use of the style based on the learning environment.

Topics discussed:

- Andragogy
- Variables Affecting Adult Learning
- Toolkit for Facilitators of Adult Learning
- Learning Theories Related to Adult Learning:
 1. Action Learning
 2. Experiential Learning
 3. Project Based Learning
 4. Self-Directed Learning

[Click Here to Play the Presentation](#) Caption: In this narrated PowerPoint presentation, we have explored the theory of the Adult Learning environment by including examples of teaching assistants, e-learning in technical colleges, and self-directed learning. [Click here for a paraphrased script of the narration](#). María del Puig Andrés, Jennifer Buoy, Margaret Daigle-Riley, and Mervine S. Jordan (2005)

Andragogy

Andragogy is the art and science of helping adults learn. Malcolm Knowles is the father of andragogy as he proposed five factors involved in adult learning.

The five assumptions underlying andragogy describe the adult learner as someone who:

- Has an independent self-concept and who can direct his or her own learning
- Has accumulated a reservoir of life experiences that is a rich resource for learning
- Has learning needs closely related to changing social roles
- Is problem-centered and interested in immediate application of knowledge
- Is motivated to learn by internal rather than external factors (Merriam, 2001, p.5)

Knowles used these principles to propose a program for the design, implementation and evaluation of adult learning. Since the development of his theory, Knowles has acknowledged that the principles he outlined did not apply solely to adult education. The development of the theory simply illustrates that the designer "should involve learners in as many aspects of their education as possible and in the creation of a climate in which they can most fruitfully learn" (Merriam, 2001, p.7). Knowles' main focus with the development of andragogy was the notion of the material being very learner centered and the learner being very self-directed.

Principles:

- Adults need to be involved in the planning and evaluation of their instruction
- Experience (including mistakes) provides the basis for learning activities
- Adults are most interested in learning about subjects that have immediate relevance to their job or personal life
- Adult learning is problem-centered rather than content-oriented

Case Study: The adults are first given an introduction to the class in personal computer training. They are told what they are going to learn and more importantly, why they are learning specific operations (functions, etc.). The learners are given task-oriented instruction as well as real-world assignments to test their skills such as creating a basic resume or a to-do list in Microsoft Word. The instructor will take into account the wide range of backgrounds of learners. The learning materials and activities should allow for different levels/types of previous experience with

computers. Attention will be paid to individual levels and goals. The instructor's role is as facilitator and expert to present the tasks and assist the learners if mistakes are made or help is requested.

Advantages/Strengths:

- Andragogy is very self-directed and allows the learner to take control of his or her learning
- Andragogy is very broad based and the method can be implemented in a variety of educational situations

Disadvantages/Weaknesses:

- Although the principles behind andragogy are very applicable in most adult learning situations it is not necessarily limited to implementation within adult learning
- Historically, andragogy has been hard to classify. It has been referred to as "a theory of adult education, theory of adult learning, theory of technology of adult learning, method of adult education, technique of adult education, and a set of assumptions."

Variables Affecting Adult Learning

Learning opportunities for adults exist in a variety of settings ranging from a formal institution to a place of employment. It is important to acknowledge prior knowledge and experiences of learners, including their ability to recognize their own skills as lifelong learners. (Merriam, 1999).

Considerations for adult development and learning include biological and psychological development (including deterioration and disease processes that may occur) and sociocultural and integrative perspectives on development (Merriam, 1999). While the most common reason for adults to place themselves in a learning environment is a life-changing event, once in that environment there are many factors that affect the learning experience. The most significant is referred to here as the briefcase brought with them.

Briefcase may include:

- Life experience (including life altering events that affect cognitive abilities)
- Work experience (including development of thinking patterns based on this experience)
- Positive/negative previous adult learning experiences

- Performance affectors, including cognitive abilities
- Time between learning interactions
- Aging factors

Toolkit for Facilitators of Adult Learning

Much of adult learning occurs in a corporate environment involving a variety of training processes. In addition to applying the various learning styles discussed in previous ebook chapters, trainers/facilitators in such environments need to have a working skill set to meet the demands of fast-paced, changing environments. New trends involve instructional designers and facilitators becoming long-term assets to training departments. Expectations are for trainers to arrive not only with delivery skills, but also with design experience and application of learning theories in a variety of settings (Meyer, 2003).

The most significant trend that continues to make an impact on facilitators is the demand for the incorporation of technology into the content and delivery of professional development (King, 2003).

The professional development toolkit for trainers should include:

- The basics of design and delivery - needs assessment, developing objectives, creating an agenda, selecting appropriate activities, providing for transfer, and designing and conducting evaluation activities
- An understanding of diverse clients and their different learning styles
- The ability to read the context, assess needs, and select or create appropriate mini-learning sessions that are often delivered as just in time learning
- The use of reflective practice skills to make sense of their situation, tailoring learning solutions to their own and other local learning needs, developing and nurturing collaborative communities of practice
- The ability to coordinate university-based, certificate, and in-service programs designed as learning laboratories
- The ability to develop activities that increasingly involve active experiential learning and debriefings
- The ability to use more than one delivery system, particularly online and eLearning
- The use of learner-centered instruction, especially self-directed learning, means trainers will need to create better ways to include opportunities for reflection, clarification, and guidance

Professional development of facilitators of adults should promote dialogue, reflection, and quality. The integrative approach to professional development involves key elements (Lawler, 2003).

Professional development:

- Is adult education
- Is learner centered
- Is transformative learning
- Needs to address motivation
- Needs to address technology learning

Training is critical in five areas today (Riddle, 2000). These areas - stimulating creativity, assessing innovation options, focusing on the customer, designing new services, and implementing change - require a broad range of skills on the part of the trainer. Development of trainers should include demonstrating multiple approaches to delivering the same information.

Learning Theories Related to Adult Learning

Caption: The Flash animation above provides an overview of four Learning Theories related to Adult Learning. They are Action Learning, Experiential Learning, Self-Directed Learning, and Project-Based Learning. In each section, you can see a brief introduction and pros and cons of each theory. The animation was designed and developed by Cheng-Yu Tsai and I-Yung Hou (2007).

Action Learning

"Emphasize action learning. Classroom training is inefficient. Half the people in the room are secretly working on their "real" jobs; half are so relieved not to be doing their real jobs, they've turned their minds entirely off. Half already know half the stuff being taught and are playing Buzzword Bingo on their Palms; half will never need to know more than half of it (Stewart, 2001, p.184)."

Action learning is a commonly used term in many discussions regarding adult learning in a variety of business settings. It holds many similarities to learning communities, discussed at length in the ebook chapter on [Learning Communities](#). If it is to be distinguished, action learning is basically the small components that create the main team involved in a learning community. Action learning has been compared with project work, learning communities and various forms of simulation used in management development. It has been more widely used recently for organizational problems (Yorks, 2000).

"Action learning is defined as an approach to working with, and developing people, which uses work on a real project or problem as the way to learn. Participants work in small groups or teams to take action to solve their project or problem, and learn how to learn from that action. A learning coach works with the group in order to help them learn how to balance their work, with the learning from that work (O'Neil, 2000, p.44)."

Components of Action Learning:

- The first part of action learning is creating action groups based on programmed learning, "the expert knowledge" and learning or real world experiences. These are small groups, generally consisting on 3 or 4 people.
- Emphasis is placed on diversifying these small groups so that each group is best equipped to contribute to the learning community.
- A learning coach is designated for each group. Together, the learning coaches also form a group.
- From there, a project group leader is chosen. Both the project group leader and the learning coaches act as organizers, facilitators and overall motivators for the action groups (O'Neil, 2000).
- Action learning involves learning from experience through reflection and action with the support group.
- It is important that the groups remain constant and have duration, meaning the opportunity to establish themselves over a solid time period (Wade, 1999).

Caption: In the Flash animation above, action learning is presented using 10 steps. The action group (animals) along with a learning coach (old lady) proceeds through these steps by 1) setting objectives, 2) creating an action group, 3) assigning a learning coach, 4) presenting the challenge, 5) defining the problem, 6) identifying actions, 7) testing out the actions, 8) discussing the results, 9) setting the action plan, 10) and drawing a conclusion. This animation was designed and developed by Minling Hung, Yi-chun Hong and Julius Gantt (2005).

[Click Here for a Video on Action Learning](#) Caption: This video depicts an Action Learning group in the process of

creating a video to celebrate the centennial of Dacula, Georgia. In the video you will see and hear a written narrative introduction of the four main components of Action Learning along with conversations during each phase of production. The four components are as follows: 1.) the diversity of knowledge and skills 2.) the learning coach acts as an expert and the group leader acts as a motivator and organizer 3.) learning occurs through ongoing reflection and action 4.) the group remains constant and has duration. In the first scene, the volunteers are introduced and have been selected based upon their diversity of knowledge and skills. Pam owns a travel agency and has excellent planning and organizational skills. The technical coordinator is Dean, who owns a local software consulting business. Connie is the city manager so she has volunteered to be the group leader. The learning coach is Shawn, an expert in creating documentaries, who has agreed to assist the group. The second scene represents the production phase of the video. The learning coach provides some suggestions for improvement, such as incorporating a more humanistic approach by adding stories to the video. Learning is taking place through ongoing action and reflection among the group members. Next, the editing phase depicts the group working on editing the footage for the hamster legend segment. The last segment of the video is the reflection phase. This phase depicts the relevance of reflecting on the process and the importance of the same group members working together over duration. Created by Shawn Parker, Pam Pritchett, Dean Looney, and Connie Derrick (2004).

Case Study: Public Service Electric & Gas (PSE&G), the nation's sixth largest combined electric and gas company, developed an action learning program in order to help the distribution department learn how to be successful in the new competitive environment that was quickly replacing its former regulated world.

The following objectives were established for the program:

- Enhance the way people communicate and interact with one another
- Weave quality tools and behaviors into the fabric of the organization
- Develop and use problem-solving and coaching skills
- Develop an environment of openness and trust, and get conflict on the table

Over two years, there were nine separate sessions with more than 250 participants. Each session averaged 28 participants, formed into four action learning groups of 7 participants each. A learning coach worked with each group. The four learning coaches also formed a learning coach team. Each action learning group addressed an actual business project, sponsored by a senior leader in the organization. During the program, the action learning groups met for a minimum of six and a half days over a six-week period with their learning coach and additional

days on their own. At the end of the session, each action learning group proposed recommendations to the entire senior leadership team. Many of these groups were involved in the implementation of their recommendations after the end of the session. Some of the outcomes included savings in the hundreds of thousands of dollars through work restructuring, improved relationships with the community through outreach programs, and a transformed view of company-customer interactions, from providing customer satisfaction to that of building customer loyalty (O'Neil, 2000).

During the beginning of these sessions, participants were overwhelmed and apprehensive about the learning approach. After working through sessions, by the end, participants were surprised at the revelations that occurred during the learning process. They reported being challenged by the learning coach and establishing a rich camaraderie with their team members.

Advantages/Strengths:

- Process used in forming groups
- Balanced and diverse groups enhance the learning process and allow significant contributions to the learning community
- Utilization of group dynamics

Disadvantages/Weaknesses:

- Struggle constantly with the balance between accomplishing their task and learning from it
- Difficult to ensure consistency across groups and across sessions of any program
- Challenge of group dynamics

Experiential Learning

"Tell me, and I will forget. Show me, and I may remember. Involve me, and I will understand." Confucius, c450 BC

Experiential learning is a learning theory that is learner-centered and operates on the premise that individuals learn best by experience. A good way to describe this theory is "learning by doing". Experiential learning thus has the learner directly involved with the material being studied instead of just thinking and talking about that material.

Experiential learning:

- Is a cyclic process involving setting goals, thinking, planning, experimenting and making decisions, and finally action, followed by observing, reflecting and reviewing
- Uses participants' own experience and their own reflection about that experience, rather than lecture as the primary approach to learning. Experiential learning theory allows for the generation of understanding and allows for the transfer of skills and knowledge.
- Involves doing something and discovering what it is like, how it made the learner feel, what it meant to the learner, i.e. experiential learning is their experience and no one else's.
- Is, therefore, particularly effective in adult education as it addresses the cognitive, emotional and the physical aspect of the learner

Case Study: A group of oncology nurses is participating in a three day in-service training course. The nurses' training sessions were conducted using the experiential learning theory. The nurses were each presented with a real-life scenario involving a challenge that an oncology nurse might face. The problem is presented to them in a real-life simulation. Once the challenge has been laid out for them each nurse must search out resources for information that might help them deal with the particular situation. Once each nurse has done the research to his/her satisfaction he/she must then face the scenario and deal with the challenge as effectively as he/she can. When each nurse has completed the scenario, the group comes back together for a group discussion about what methods worked and what methods did not work. The nurses then evaluate themselves on the effectiveness of their research as well as the effectiveness of the implementation of the research. On the final day of the in-service each nurse is given the chance to face the challenge again after the discussion and reflection.

Advantages/Strengths:

- Experiential learning theory builds on experience. This is especially important in adult learning because simply by living, adults bring a wealth of experience to every learning situation they face.
- Experiential learning theory is a holistic learning approach
- Experiential learning theory is most effective when the learning has intrinsic motivation which is a common characteristic in adult learning

Disadvantages/Weaknesses:

- Experiential learning theory does not take into account differences in cultural experiences or conditions
- It is less clear where elements of learning such as goals, purpose and intentions fit into experiential learning theory
- It may not help us understand and explain change and new experiences

Project Based Learning

In Project Based Learning, students work in groups to solve challenging problems that are authentic and often interdisciplinary. Learners decide how to approach a problem and what activities to pursue. This is comparable to the project based learning strategies as discussed in the ebook chapter [Constructionism, Learning by Design, and Project Based Learning](#).

- The learners gather information from a variety of sources and synthesize, analyze, and derive knowledge from it.
- The learning is inherently valuable because it is connected to something real and involves adult skills such as collaboration and reflection.
- At the end, the learners demonstrate their newly-acquired knowledge and are judged by how much they have learned and how well they communicate it.
- Throughout this process, the teacher's role is to guide and advise, rather than to direct and manage student work.

Case Study: The instructor of a pre-GED class wanted to get her students motivated to become involved in their communities. Their first step was to discuss and write about what a community was. They talked about the issues that affected the students' communities. The students took turns stating problems they thought were affecting the community the most. Through group discussion the list was narrowed down the most pressing problems. The class then put together a survey to get input from the community on these topics. This group work helped the students develop not only literacy but also social skills. The class compared the answers from neighborhood to neighborhood, looking for the biggest issues. The students decided that they would like to put together a forum for the junior high school students.

Advantages/Strengths:

- PBL gives the learner a chance to work on real-life scenarios that would be implausible on a real scale. (i.e. management training in restructuring corporations)
- It allows for cooperative learning situations which build teamwork and collaboration skills important in many adult learning situations.

Disadvantages/Weaknesses:

- PBL might not always be the best learning method when dealing with many different cultures and backgrounds because problem solving methods vary from culture to culture.

Self-Directed Learning

"Informal and incidental learning is at the heart of adult education because of its learner-centered focus and the lessons that can be learned from life experience (Marsick, 2001, p.25)." Self-directed learning is an example of informal learning. It is defined as the process in which individuals take on the responsibility for their own learning process by diagnosing their personal learning needs, setting goals, identifying resources, implementing strategies and evaluating the outcomes. In 1999, more than 95% of adults participated in self-directed learning. Typical learners spend an average of 15 hours per week on a self-directed learning project (Rager, 2003).

There are three categories involved with self-directed learning: the goals, the process, and the learner. In an adult learning context, the goals are generally self-determined, as is the process. Self-directed learning can be enhanced with facilitation, particularly through providing resources. Motivation is key to a successful self-directed learning experience. This is very similar to the motivation that takes place in children during a self-regulated learning experience as mentioned in the [Motivation Chapter](#) of the ebook.

Adult Learners are motivated by the opportunity to:

- Gain new skills, knowledge, and attitudes to improve their work performance
- Improve family life and health, enjoy the arts and physical recreation, participate in a hobby, or simply increase their intellectual capital

Case Study: 183,000 women are diagnosed with breast cancer each year. For many, self-directed learning becomes a means to learn about their condition and provides a method for coping with it. Resources obtained through doctors, support groups, libraries and the Internet facilitate their learning. From this information, the learners gain a sense of control and direction over their own well-being, and are able to make informed decisions about treatment options.

Advantages/Strengths:

- Integrated with daily routines
- Triggered by an internal or external motivation
- An inductive process of reflection and action
- Linked to learning of others

Disadvantages/Weaknesses:

- Learners are self-directed depending on the situation. They will not necessarily be self-directed in all situations.
- Not all adults prefer the self-directed option, and even the adults who practice self-directed learning also engage in more formal educational experiences such as teacher-directed courses.
- Because it is unstructured, learners can easily be distracted by their own needs, assumptions, values, and misperceptions.
- Research has shown that some adults are unable to engage in self-directed learning because they lack independence, confidence, or resources.
- In recent years, less research has been conducted on self-directed learning.

Adults Are Students Too

Learning Theories Related to Adult Learning



Conclusion



There are a multitude of theories applicable to adult learning. For each theory, there are many independent factors brought to the environment by the learner. Based on the research by the authors, the theories listed in this chapter were found to be the most relevant for current trends in adult learning. However, all theories should be taken under consideration by facilitators and learners.

[Click Here to Download PowerPoint Quiz](#) -- Caption: Test your Adult Learning knowledge by playing this Jeopardy game! You will be asked to recall information regarding Adult Learning. Have fun! This Jeopardy game was created by Cliff Garrett and Kristen Garner (2006).

Adults are students too

Table 1. Learning Theories Related to Adult Learning - table created by Mandy McEntyre and Jenn Pahl (2006).

	Theory Summary	Pros of the Theory	Cons of the Theory	Theory in Practice
 <p>Action Learning</p>	<p>Participants work in small groups on a real project/problem and learn how to learn from that activity.</p>	<ul style="list-style-type: none"> • Small groups learn by solving real world problem. • Diverse group dynamics includes members with expert knowledge which allows each member to significantly contribute. • Group members benefit from learning coaches who act as organizers, facilitators, and overall motivators. 	<ul style="list-style-type: none"> • Challenges imposed by group dynamics. • Difficulty ensuring consistency across groups and maintaining groups across sessions in a learning program. • Difficulty balancing accomplishing the work with learning from the work. 	<p>Researchers for an information services company undergo training to help them increase their data acquisition numbers. Small groups are formed and an outside consultant/ learning coach assists them in brainstorming and developing new techniques for gathering data from industry sources.</p> <p>As the techniques are developed the groups test them on their sources and refine them. Every four weeks the groups convene to discuss their progress and what they have learned. The end result is a new set of improved data gathering techniques and an overall group understanding of how to use them.</p>
 <p>Experiential Learning</p>	<p>A holistic learning approach in which the learner utilizes his/her experiences and</p>	<ul style="list-style-type: none"> • Learning takes place through direct involvement and reflection. • Learners bring their 	<ul style="list-style-type: none"> • Time and resource intensive for student and instructor. • Learners may bring differing cultural 	<p>An audio/visual equipment company recently hired several sales representatives, all of whom have sales experience in other industries. As part of</p>

<p>Experientia I Learning</p>	<p>learning strengths in the process of constructing knowledge. More commonly referred to as “learning by doing”.</p>	<p>own life experience to the learning situation.</p> <ul style="list-style-type: none"> • “Hands-on” aspect increases motivation and material retention. 	<p>experiences or perspectives to the learning experience.</p> <ul style="list-style-type: none"> • Theory does not aid in understanding or explaining change and new experiences. 	<p>their training, each new sales representative is paired with a mentor who is a veteran with the A/V company.</p> <p>The A/V mentors take the new sales reps to assist on sales calls. This allows the new sales reps to learn the industry by interacting with customers during the sales process. It also assists the new sales reps in determining how they can use their previous sales experience to advance themselves in their new positions.</p>
 <p>Project Based Learning</p>	<p>Participants work in small groups to solve a challenging, interdisciplinary problem using group chosen strategies and activities.</p>	<ul style="list-style-type: none"> • Allows for participants to participate in cooperative learning activities which help to build teamwork and collaboration skills. • Participants are able to participate in learning scenarios directly applicable to the real-world. 	<ul style="list-style-type: none"> • Problem solving skills may differ among cultures, causing problems among group members during PBL activities. • PBL activities may prove to be time consuming in terms of both planning and applying. 	<p>A city has recently been awarded a government grant to build a park. The city has charged a class at a local community college with the job of creating a plan that efficiently uses available space and funds.</p> <p>In groups the students search out possible plans for the park through surveys, studies, etc. Each group then presents their plan to the council for a vote to decide upon a plan for the park.</p>
 <p>Self-Directed</p>	<p>An informal learning process in which an individual takes on the responsibility for his/her learning</p>	<ul style="list-style-type: none"> • Can be easily implemented in daily activities. • Students are motivated by internal/ external motivation. 	<ul style="list-style-type: none"> • Some situations lend themselves to self-directed learning better than others. • Self-Directed Learning needs to be combined 	<p>Bob would like to buy a new car. He wants to ensure that he gets the best car for his budget, so he begins to conduct research on cars, their gas mileage, size, and financing plans.</p>

Learning	process by identifying their learning needs, setting goals, finding resources, implementing strategies, and evaluating their results.	<ul style="list-style-type: none"> • Self-Directed Learning is a reflective and action-oriented process. • Learning can be linked with other students. 	<p>with other learning methods for content to be fully learned.</p> <ul style="list-style-type: none"> • Since Self-Directed Learning is unstructured and independent, it is easy for students to become unproductive. 	By searching for information online, visiting numerous dealerships and obtaining brochures, Bob is able to expand his knowledge and make an educated decision as to which car he will purchase.
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This table was created by Mandy McEntyre and Jenn Pahl (2006).

Training strategies

Focuses on a scenario in strategies for Middle School and High School Faculty Development in Media and Technology: [Training strategies](#)

Biography - Malcolm Knowles

Written by Mike Cambell, Yingnan Chen, Katie Davis, Spring 2010

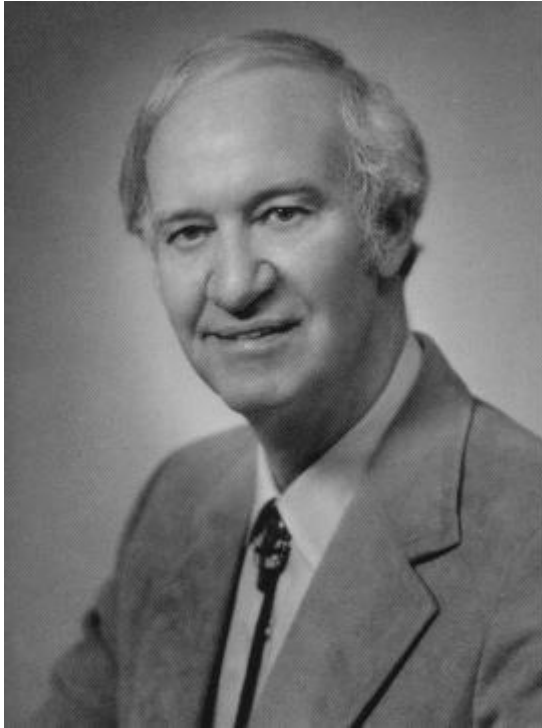


Photo of Malcolm Knowles Image source: <http://www.lifecircles-inc.com/Learningtheories/knows.html>

Malcolm Shepherd Knowles (1913 - 1997) was a great leader in U.S. adult education in the twentieth century. This respectable adult educator devoted himself to the development of adult learning theory and adult education program planning both as an academician and a practitioner. Malcolm Shepherd Knowles was born August 24, 1913, in Livingston, Montana and grew up in Florida in the 1920s. In his youth, he participated in the Boy Scouts in which he won the Boy Scout national contest for earning the most badges in a year. After earning 50 badges, Knowles was rewarded a trip to the world Jamboree of Scouting in Birkenhead, England.

Knowles earned a full scholarship to Harvard University in 1930 where he finished his bachelor's degree in 1934. He became interested in adult education while working as Director of the YMCA in Boston and continued with the YMCA organization in Detroit and then Chicago through 1951. One of the most defining moments for Knowles' interest in adult education occurred while at the YMCA. Knowles noticed first hand that traditional teaching methods did not work well on adult learners. Two classes were given to adults who were interested in learning astronomy. The first class was given by a college professor who used the traditional teaching method using lectures. Interest in the class quickly waned and was subsequently canceled. Noticing that the participants were still interested in learning about the subject, he hired an amateur astronomer to conduct the second class. The lay teacher used methods which are current mainstays in adult education, such as asking the students what their interests were, customizing the content to their interests, and using interactive content such as field trips to teach the subject.

Knowles received his master's degree from the University of Chicago in 1949. He later earned his PhD at the University of Chicago in 1959 and accepted a job at Boston University as an adult education professor.

He retired in 1978 as part of the faculty of Education at North Carolina State University. In his retirement, Knowles continued working in the adult education and clinical psychology fields until the 1990s.

Resources

Malcolm Knowles, informal adult education, self-direction and andragogy

<http://www.infed.org/thinkers/et-knowl.htm>

<http://www.answers.com/topic/malcolm-knowles>

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