



## **Maximizing the Adult Learning Experience** *Vicky Dornbush, Principal Consultant, Epic Practice*

### **Introduction**

Adults learn differently than they did as children. This is a reality rarely understood by the adult learners and by the organizations that train them. Because the adult learning experience is so unique, most companies do not realize how to handle these differences and cater to their trainees. In order for the organizations to successfully move into the future, leadership must understand what the best way is for adults to process and acquire new information. An understanding of the way adults learn benefits the individuals and the organizations.

Pedagogy means the art and science of educating children more specifically teacher-focused education. Andragogy is defined as the art and science of helping adults learn or, more broadly learner-focused education for people of all ages.<sup>1</sup> The adult learning experience is different from the child learner in many distinct ways. Adults are exposed to outside influences, and as they grow older, they form opinions based on their experience and background. Children, however, learn by building the cell assemblies (a process within the brain through which neurons build on each other<sup>2</sup>), and phase sequences (a group of cell assemblies working together<sup>3</sup>) found in learning. Adults spend more time making new arrangements than forming new sequences.<sup>4</sup>

Because most adults are uncomfortable with change, the idea of learning new things does not work into their belief system. Western society once believed that adults do not learn.<sup>5</sup> Without challenging that idea, adults tend to believe it is true. This premise causes many adults to miss opportunities to continue learning because they assume they cannot.

The purpose of this paper is to explore how adults learn, how their learning styles differ, and how organizations can take this information to motivate and better educate their workforce. The issue of adult learning and employee cultivation is important as the retirement age gets older and older.

### **Adult Learning Styles**

One of the first areas of learning is found in the mental growth of the adult. Cognition, the act or process of knowing, plays an important part in the way the information is processed by the learner. James Hartley states that learning results from inferences, expectations, and making connections.<sup>6</sup> Hartley associates cognitive psychology with four key principles of learning:

- Activity is important
- Repetition, generalization, and discrimination are important notions.
- Positive reinforcement is the cardinal motivator
- Learning is helped when objectives are clear<sup>7</sup>

Adults do better when they are kept active because their attention span is lower than younger people so staying active keeps them engaged in the learning process. Repeating information again and again in different ways enables adults to recall, remember, and associate learning. When rewards are given out as positive reinforcement during a learning event or training session, adults can measure their success and feel good about their accomplishments. Publishing the objectives at the beginning of the training allows the adult learner to understand what they should expect. Clearly stating these objectives also keeps the trainers on track.

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<sup>1</sup> Conner, 1995

<sup>2</sup> Colman, 2001

<sup>3</sup> Colman, 2001

<sup>4</sup> Conner, 1995

<sup>5</sup> Conner, 1995

<sup>6</sup> Smith, 1999

<sup>7</sup> Hartley, 1998

The second piece of the adult learning model is to help each adult understand what his/her learning style is. Each learner processes information differently. The three learning styles are identified by Marcia Conner are visual, auditory, and tactile/kinesthetic.<sup>8</sup> The visual learner envisions the topic and may play a movie in their thoughts. The auditory learner listens to the words you read really trying to hear them and may read aloud or talk through the information. Finally, the tactile/kinesthetic learner uses a pencil or highlighter to mark the passages in the book, takes notes in the margins and stays busy both mentally and physically.<sup>9</sup>

Understanding one's learning style enhances the ability to learn. When I gave a learning styles exercise to my team to show them the differences in how people learn, they were surprised by the outcomes. My team members are studying for certifications in a software program they are expected to be experts in, with a large learning curve, in a short period of time. They must take three tests and receive a score higher than 85% in each. The organization I work with allows each employee to take each test up to three times. If they fail the test the third time, they are immediately fired. The score level is set by the software vendor. Once the team members understood how they processed their information, their test scores improved.

Chris Argyris is known for his work with organizational learning. Argyris felt that individuals have mental maps with regard to how they should act in situations. People will act according to their mental maps which dictate their plan, implementation, and actions even though they state differently: an occurrence which Argyris calls theories-in-action.<sup>10</sup> In some cases, the person may not even be aware of this behavior. Argyris developed a double-loop learning to question the role of the framing and learning systems which underline actual goals and strategies.<sup>11</sup>

Individuals do not want to expose their actions and feelings because this makes them vulnerable and they may not appear to know as much as they actually do. They also can show indifference which is a way of being defensive or fulfilling myth that they "cannot learn anything new."

With this in mind, the adult learner can actually be the obstruction to their own learning. When this happens in an organizational environment that is promoting learning and growth, the adult must first understand themselves to be able to learn and grow. Moving to the good learning model, Kolb's model of experiential learning shows the educator as the facilitator of the person's learning cycle. The role of the teacher can also be stated as the coach, the mentor, and the person who helps individuals to reflect upon their own theories-in-action.<sup>12</sup>

### **Advantages and Disadvantage of Aging for the Adult**

The adult learner must face a series of issues in regards to aging along with their own attitudes toward aging. The way they process and remember information is important to understanding the aging and learning process. In order to further understand the declining ability to memorize various information, people must understand crystal and fluid information.

Crystal intelligence and fluid intelligence are very important in problem solving and measuring cognition<sup>13</sup> and play a vital role in the process of learning. Fluid intelligence is the ability to think and reason abstractly as well as solve problems. Examples include problem solving and devising problem solving strategies. Fluid intelligence eventually starts to decline in adulthood. Crystallized intelligence is learning from past experiences. This type of intelligence becomes stronger as we age and accumulate new knowledge and understanding.<sup>14</sup>

Crystal intelligence works better when the adult can put the entire picture together—an ability provided by fluid intelligence. One idea links to another and works into the adult's learning experiences<sup>15</sup>.

Crystallized and Fluid intelligence:

- Both increase throughout childhood and adolescence.
- Fluid intelligence peaks in adolescence and begins to decline progressively beginning around age 30 or 40.
- Crystallized intelligence continues to grow throughout adulthood.<sup>16</sup>

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<sup>8</sup> Conner, 2004

<sup>9</sup> Conner, 2004

<sup>10</sup> Argyris, 1957

<sup>11</sup> Smith, 2007

<sup>12</sup> Smith, 2007

<sup>13</sup> Birren and Schaie, 2006

<sup>14</sup> Horn & Cattell, 1967

<sup>15</sup> Horn & Cattell, 1967

<sup>16</sup> Horn & Cattell, 1967

Crystal intelligence shows how the adult can have issues with memorizing amounts of information that does not have any reasonable linking. Large lists that were so easy to learn in high school or college for the next day's test but forgotten soon after are harder to memorize now. This is not a memory problem; it is a difference in processing information. The adult feels they are losing their memory functions when they do not have the proper linking information.

### **Employers and the Aging Adult**

In 2004, 54.2 million people in the United States were between 55 and 79 which constituted about nineteen percent of the American population.<sup>17</sup> This number accounts for a huge percentage of working Americans. Employers do not want to alienate or lose these people for several reasons. Older adults make up a large percentage of the brain wealth of the organization. The aging worker has a wealth of experiences that is critical and contributes to saving time when projects are implemented. The older adult has been there and done that implementation before. The implementations may not be exactly the same but an experienced employee knows how to adapt.

These employees may also be the mentors for the new workforce. They show the newer workers how to move forward, leading the way but also allowing the new and younger worker to make mistakes so they learn. This mentoring allows the younger worker to grow in a somewhat safe environment while also expanding their knowledge and learning how to make the job their own.

Older workers also want to start new careers with new found education. With the life expectancy at 78 years and rising and the average retirement at 62, baby boomers are asking themselves, "How do I want to spend the next 15 to 20 years?"<sup>18</sup> They are healthy and want to continue their personal growth through education. Employers can take advantage of this desire and train older employees in order to retain them.

### **What Motivates Adults to Learn**

The ways to motivate the adult learner and create a positive environment for learning is to meet their varied needs. Adults must be able to participate in the learning process, feel they have some control, and keep their belief system while also feeling comfortable accepting changes. This is a tall order which most organizations do not meet.

Encouragement enables the adult learner to grow. The following aspects should always be followed when working with adults:

- Respect the learner as a person, no matter what is being taught
- Trust and believe in the learner's efforts
- Understand that the learner can learn
- Give recognition for the effort given
- Show faith in the adult's capacity as a learner<sup>19</sup>

Another area of importance when motivating the adult learner is to encompass the learning styles, adult interests, and relevance to the subject being taught.<sup>20</sup> Openness to delivering the training or instruction in a variety of ways increases the success level of training. Examples include:

- Using a narrative approach, using a conversational tone
- Use an esthetic approach by creating and showing diagrams or pictures
- Create a sharing environment by reflecting on individuals' influences and behaviors
- Encourage further investigation by challenging learners in a safe and relevant way

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<sup>17</sup>Robinson and Lakin, 2007

<sup>18</sup>Robinson and Lakin, 2007

<sup>19</sup>Wlodkowski, 1999

<sup>20</sup>Wlodkowski, 1999

### **Putting Research into Action**

Hospitals using Epic Systems require their analysts to be certified for many different modules. The certification process is three classes in three days held in Madison, Wisconsin. After each class there is a project and a test. Testing is open book with a two hour time limit. Each student has three chances to pass the test and in many situations if that student fails they are immediately fired. In August of 2008 twelve people were hired to work with Epic software on the condition that they would get certified as soon as possible. Initially, two of the employees were sent to Madison to take the classes. After the classes they were given one week to study and take the test. Neither of the employees passed. On the second attempt one employee passed and the other failed. The person who had to take the test a third time DID pass but was exceptionally worried leading up to that test.

When it was time for the second round of classes and training both employees failed again. Investigating the process to understand what could be causing the employees to fail I learned that the only preparation these employees had (besides the classes) were to re-read the training manuals and work with the software. They did have a software representative available who was suppose to help them study and answer questions, but he thought that if a person failed once they would continue to fail regardless of any help they received. These employees were failing, not because they didn't understand the material but because they didn't know how to study. They were receiving the same scores on their second chance tests that they had on the first tests. I put a process in place that included:

- Study sessions were the employees studied together.
- Meetings with the software representative that changed how they dealt with their students.
- Enabling the students to identify their learning styles.
- Making various people available to answer questions

This process resulted in passing the tests. Not only did these students pass the test but one student's score went from 59 to 97 and the other went from 65 to 88. The ten remaining employees are now going through the certification process, with their fears of not passing and looking stupid alleviated. Most of those employees have passed their tests on the first try because they now understand their learning styles and don't fight against it.

### **Conclusion**

Adults can learn new things. They bring benefits to the workplace and the organization. Leaders must be able to work with the employees, and benefit from their wealth of knowledge. The adult worker is reliable, motivated, and dedicated. Nothing is more rewarding than when a fifty-five year old woman, who had given up on her career because of the new computer system coming in, turns out to be one of the power users. Her comment was: "I never knew how smart I was until I challenged myself. I am proud of myself for taking a chance. Thank you for taking chance on me and changing my life."

If you would like more information on this subject please email VCS at [vcs@getvitalized.com](mailto:vcs@getvitalized.com) or call us at 610.444.1233.

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