# The Power of Learning in Action Learning: A Conceptual Analysis of How the Five Schools of Adult Learning Theories Are Incorporated within the Practice of Action Learning

**Michael Marquardt**
**Deborah Waddill**

## Abstract

Action learning has the ability to solve complex problems and to significantly increase the speed and quality of individual, team and organizational learning. Its theoretical base and relationship to adult learning orientations and the source of this power remain relatively unexplored. The authors conducted an extensive review of the literature in order to examine how each of the six critical components of an action learning program (namely; a problem or task, a group, the reflective inquiry process, action, learning, and an action learning coach) incorporates and applies five major adult learning schools (behaviorist, cognitivist, humanist, social and constructivist). An empirical example from the authors' experience is presented to illustrate the extent and range in which action learning incorporates each of the five schools of adult learning.

*Keywords: action learning, adult learning, learning theory*

Action learning has proven to be a powerful tool, which increases significant, relevant, and long-lasting learning in relatively short-periods of time (Revans, 1980, 1982; Marsick, 1992). The uniqueness of action learning is its wide-ranging application to both learning and action for individuals, teams and organizations (Dilworth and Willis, 2002, Marquardt, 1998, 2003; Pedler, 1997). Practitioners and theorists from diverse disciplines such as management science, psychology, sociology, engineering, political science, sociology, anthropology, political science, and higher education embrace its practical effectiveness (Marquardt, 2004; Marquardt & Berger, 2000). Action learning has been used for numerous purposes including strategic development,

knowledge management, organizational development, human resources, executive coaching and team dynamics (Marquardt, 2004; Pedler, 1997; York, O'Neil & Marsick, 1999).

There unfortunately exists in the academic community a propensity to create silos around specific learning theories or schools of adult learning. Competition often emerges among the theoretical orientations, thereby generating disagreements and tensions. While protecting the boundaries of the schools of adult learning allows for further development of the concepts within those orientations, so also is it also beneficial to have cross-pollination and a sharing of areas of agreement. Recognizing and distilling the similarities and shared principles can benefit academics and practitioners.

This article examines and explains ways in which each of the adult learning theories builds and supports the powerful nature of the action learning process. In fact, action learning creates a basis for establishing common ground among all five adult learning orientations.

Clearly, some adult learning theories apply more than others in the analysis and description of action learning, and these limitations appear as one analyzes the distinct elements of action learning. However, it is our purpose to highlight the combined usefulness of each of the adult learning theories in explaining the potency of action learning. Because action learning utilizes theories, principles and practices of each of the five major adult learning orientations, it bridges these meta-theories and offers a compelling learning opportunity for individuals, teams, and organizations (Marquardt, 2004). The authors contend that the high level and quality of learning in action learning is explained by action learning's impressive ability to employ and apply a diverse array of learning theories.

## Essence of and a Model for Action Learning

Since Reg Revans first introduced action learning in the coal mines of Wales and England in the 1940s, there have been multiple variations of the concept. However, all forms of action learning share the elements of real people resolving and taking action on real problems in real time, and learning through questioning and reflection while doing so. The attraction of action learning is its power to simultaneously and resourcefully solve difficult challenges and develop people and organizations at minimal costs to the institutions. Revans never operationalized action learning into a standard approach (Marsick and O'Neil, 1999), but over the years a number of individuals have developed approaches and models that capture the essence and critical elements that make action learning successful (Dilworth, 1998; Dotlich &

Noel, 1998; Marquardt, 1999, 2004; Mumford, 1991; Pedler, 1997; Weinstein, 1995). We selected the Marquardt approach because it captures the essential components of the process originally proposed by Revans; has been effectively implemented worldwide in hundreds of organizations such as Boeing, Caterpillar, Constellation Energy, Fairfax Public Schools, Samsung, US Department of Agriculture, Mauritius Business School, and Sodexho (Coghlan, 2002; Global Institute for Action Learning, 2003; Lenderman, Lastar & Lenderman, 2003; Marquardt, 2003, 2004; Shelton, 1999); and has been frequently cited as a key approach for understanding action learning (Bannan-Ritland, 2003; Coughlan, Coghlan, Dromgoole, Duff, Caffrey, Lynch, Rose, Stack, McGill, & Sheridan, 2002; Dotlich and Noel, 1998; Rossett, 1999; Salopek, 1999; York et a1, 1999).

Marquardt's approach to action learning is built around six components: (1) a problem or challenge of importance to the group; (2) a group of 4-8 members, ideally from diverse backgrounds and/or parts of the organization; (3) a process that emphasizes questions and reflection; (4) the power to take action on strategies developed; (5) a commitment to learning at the individual, team and organizational levels; and (6) an action learning coach who focuses on and ensures that time and energy are devoted to capturing the learning and improving the skill level of the group (Marquardt, 1999, 2004).

## Theories and Schools of Adult Learning

Adult learning (andragogy), concerned with how adults learn, recognizes and acknowledges that a number of factors influence how adults learn differently from children (pedagogy). Knowles (1970, 1984) identified several factors that distinguish andragogy from pedagogy; namely, (1) the adult learner is self-directing, (2) adults' experiences make them rich resources for one another, (3) their readiness to learn can be triggered by effective role models, (4) adults enter an educational activity with a life-centered, task-centered, or problem-centered orientation to learning, and (5) the more potent motivators for adults are internal such as self-esteem, recognition, better quality of life, self-confidence, and self-actualization.

Over the past century a number of learning schools, also called orientations or metatheories, have emerged (Ormond, 1999). Merriam and Caffarella (1991) categorized the theories into five schools, each with distinctive, although sometimes overlapping, perspectives and approaches to learning. Although other categorizations of adult education (Charters & Hilton, 1989) and learning theories exist (Hergenhahn, 1988), Merriam and Caffarella's

approach was chosen because of its broad scope, inclusiveness, positive review (McKenna, 1992) and the concurrence of other scholars (Ormond, 1999; Swanson and Holton, 2001). The five orientations or schools can be described as follows:

- *Cognitivist* – Cognitivists focus on how humans learn and understand using internal processes of acquiring, understanding and retaining knowledge. Cognitivists believe that humans are capable of insight, perception, and attributing meaning. Learning occurs when humans reorganize experiences, thereby making sense of input from the environment.
- *Behaviorist* – The Behaviorists concentrate on learning through control of the external environment. The emphasis is on changing behavior through processes such as operant conditioning. Behaviorists believe that learning is built on three assumptions: 1) changed behavior indicates learning; 2) learning is determined by elements in the environment; 3) repetition and re-enforcement of learning behaviors assist in the learning process (Merriam & Caffarella, 1991).
- *Humanist* – Humanists emphasize the development of the whole person and place emphasis on the affective domain. This orientation views individuals as seeking self-actualization through learning, and being capable of determining their own learning. Self-directed learning is embraced by members of this school.
- *Social Learning* – Social Learning Theory (often referred to as Social Cognitive Theory) focuses on the social context in which people learn; i.e., how they learn through interacting with and observing other people. People can learn from imitating others (thus the importance of role models and mentoring). Social learning, for example, occurs when the culture of the organization is passed on to new employees teaching them how to be effective in that organization.
- *Constructivist* – Constructivism stresses that all knowledge is context bound and that individuals make personal meaning of their learning experiences through internal construction of reality. This school emphasizes the importance of changing oneself and the environment. Reflective practice is a key manifestation of this orientation.

**Research Questions**

The quest for faster as well as more relevant and potent learning drives practitioners and theoreticians to continuously search for new and better learning methodologies. Action learning,

because of its learning strength and successes, has generated widespread interest about its inherent learning elements. Although action learning has been primarily linked with adult learning theories such as action/reflection approach (Marsick, Cederholm, Turner & Pearson, 1992; Yorks et al, 1999), work-based or situated learning (Gregory, 1994), and problem-based learning (Dotlich & Noel, 1998), it has never been examined relative to each of the five learning schools. In our conceptual review and analysis of the literature, we sought to answer two questions:

- What do theorists from each of the five learning schools say about learning relative to the six components of action learning?
- How does action learning utilize the principles and theories of each of the five schools of adult learning?

**Methodology**

The five schools identified by Merriam & Caffarella (1991) served as the basis for this review for which over 30 sources including and in addition to those cited by the above authors were examined for each orientation. Marquardt's six elements of action learning were identified as the action learning approach against which we would compare each of the components of the five schools of learning. We conducted a search in ABI/Inform of both current and past literature (1986-2004) within peer-reviewed journals. Our research unveiled a wide range and depth of existing relationships between the constructs of the schools and the six elements of action learning. Figure 1 provides a list of the key proponents in each adult learning school whose theories relate to the learning aspects of the six components of action. In order to illustrate how action learning incorporates and bridges the various schools of action learning, we have additionally presented a case example of how the five adult learning orientations were present in each of the six components of action learning.

**Place Figure 1 here**

We would like to note two limitations of the analysis resulting from the literature review. First, the placement of a particular theory, practice or principle into a particular orientation revealed some commonalities or overlap among the orientations, just as there are theorists (e.g., Dewey, Bandura, Knowles, Kolb) who are identified within different orientations. Final placement was determined by what the literature indicated was most consistent and faithful to the principles of that metatheory. Second, some orientations appeared more supportive of the action

learning process than others (e.g., constructivist and social learning). The behaviorist orientation, on the other hand, seemed less connected to action learning as it supports a rather mechanistic approach to andragogy.

## Connections between Action Learning Components and Adult Learning Schools

In this section, we briefly describe Marquardt's six action learning components and then provide examples of theories within each of the adult learning schools that support the principles and practices of that particular action learning component.

### *A Problem, Project, or Challenge*

Action learning is built around a problem, project, or challenge, the resolution of which is of high importance to an individual, team and/or organization. The problem should be significant, be within the responsibility of the team or individual to resolve, and provide opportunity for learning (Revans, 1982). It is one of the fundamental beliefs of action learning that we learn best when undertaking some action upon which we reflect and from which we subsequently learn. The problem or project gives the group meaningful, relevant work, and creates a hook for experimentation using stored knowledge. As Revans (1980) notes "Thus, the conundrums of action learning are to be problems, to excite the interest of the participants in what they cannot see rather than enhance their skill in elaborating what they can see already. The project task must therefore be open-ended…inter-departmental and of serious concern to those who offer it" (p. 292).

Each of the schools of adult learning acknowledges the value of learning from the presented problem or challenge. For the behaviorists, the problem is the external stimulus that begins the learning process. The cognitivists perceive the problem as the trigger for the internal mental process of learning. As Argyris (1991) notes, "the key to any educational experience …is to connect the program to real business problems" (p. 107). Humanists view the problem as an opportunity for self-directed learning in which a person perceives a need for information, identifies an appropriate learning resource, and undertakes an activity that allows the learning to take place (Confessore & Confessore 1992). For the school of social learning, the problem emerges as something under the learner's locus of control. Its immediacy and practicality generates the learning opportunity (Dewey, 1916). Constructivists promote the situated cognition aspect of learning and emphasize that learning needs to take place in an authentic context (Brown and Duguid, 1991, 2000). When the problem is real, relevant, and current within the workplace of one of the group members, as in the case of action learning, the learning is more

likely to transfer to real-life problem solving. Freire (1973), another constructivist, highlights the problem-posing aspect of learning. Problem posing involves making a taken-for-granted situation problematic, and raising questions about its validity. The learners assist in questioning the presuppositions of the set or group member who owns the problem. If the problem is crucial enough and the action learning process thorough enough, Mezirow (1995) would label the problem a "disorienting dilemma" which is the precursor to transformative learning.

*Case Example*

*A large energy company needed to develop a new work schedule that assured that the facilities were covered 24 hours a day. The present system was one that sapped the earnings, energy, and morale of the workers and often left the company unable to meet demands of customers. Management's imposition of a 6-day a week schedule was a burden to the workers and their families, especially since many of the workers needed to drive more than two hours a day to the remote mines. Frustrations and anger abounded on all sides, and everyone saw the problem in a different way (constructivist). The situation demanded action (behaviorist).*

*A diverse group of 8 people were brought together (social learning) to work on this problem over a 2-day period. Management indicated that it was looking for a new solution. After the group received a brief introduction to the six components of action learning, the group began diagnosing the problem and soon saw the problem not only as a stimulus/opportunity to design and take effective action but also to learn how to work better as a team and become more competent leaders (humanist and cognitive).*

***A Diverse Group (also referred to as an "action learning set")***

To optimally solve the problem and create as much learning as possible, action learning occurs within a group, or set, which is composed of 4-8 individuals. When possible, the membership of the group should be diverse so as to maximize various perspectives and to obtain fresh viewpoints (Dilworth & Willis, 2003). Groups may be composed of individuals from across functions or departments, or even suppliers or customers. Revans (1980) describes the set as follows: "The central idea of this approach … is that of the set, or small group of comrades in adversity, striving to learn with and from each other as they confess their failures and expand upon their victories" (p. 16). Revans (1988) states that "the ultimate power of a successful [group] lies not in the brilliance of its individual members, but in the cross-fertilisation of its collective abilities" (p. 8).

All of the five schools of adult learning recognize the importance of the group and its members in the learning process. The cognitivists view learning as a primarily internal mental process involving external stimuli such as group input (Gagne, 1965). Reflection takes place individually and internally. The diversity of the group and different perspectives provide input and opportunity for the thinking process, resulting in individual and team learning. The cognitivists see individual behaviors within a group as a sharing of cognitive understanding of objects or activities (Mead, 1934).

The behaviorist school sees the group context as an essential part of the learning "environment" (Skinner, 1976). As a diverse group which is willing to work/act and learn, the individuals within the group become "conditioned" and committed to listen, act and learn from each other. The members become an active part of the learning environment and optimize their power of learning in a group.

For the humanist, an increase in one's value and self-esteem for the individual occurs as he contributes to actions and learnings of the group. The caring and support for group members emphasizes the "human" element of the learning process (Rogers & Freiberg, 1994). As there is freedom, openness and strong support for each person to ask fresh questions, members quickly acquire greater self-confidence and develop strong rapport with fellow group members.

Social learning theorists recognize that learning thrives in the milieu of a group working together on a problem. The members bring varying levels of familiarity to the problem or context of the problem which generates social learning. Learning requires social interaction, collaboration and participation. The emerging body of literature regarding communities-of-practice incorporates many of the principles of action learning (Lave & Wenger, 1990; Wenger, McDermott, & Snyder, 2002). Communities-of-practice, like action learning groups, are "often more fluid and interpenetrative than bounded, often crossing the restrictive boundaries of the organization to incorporate people from the outside" (Brown & Duguid, 1991, p. 49).

The constructivist school asserts that the group constructs its own norms that are needed for self maintenance. The process of social construction (Orr, 1990) naturally occurs within an action learning set because the group creates a shared comprehension of the problem even though there is conflicting data that complicated comprehension. The shared comprehension and the resolve for specific action emerge from the questioning by set members and storytelling by the member presenting the problem.

*Case Example (continued)*

*The action learning group consisted of a wide variety of individuals –technicians from different work sites of the company, a senior administrator, and a manager from another industry. The 8 members included employees new to the company as well as older, experienced workers (social learning). Some were actually experiencing the problem while others needed to understand why it was a problem (constructivist). There was pressure to solve this problem and high hopes placed on performance improvement (behaviorist). Management indicated that the group could indeed come up with the solutions, and that everyone's ideas were needed (humanist). If the group could ask good questions and learn from each other, the problem could be solved (cognitivist).*

***Reflective Inquiry Process***

By focusing on the right questions rather than the right answers, action learning focuses on what one does not know as well as what one does know (Mumford, 1995). Action learning tackles problems through a process of first asking questions to clarify the exact nature of the problem which is followed by reflecting on and identifying possible solutions, and only then taking action. Action learning employs the formula: L = P + Q + R; i.e., Learning = *Programmed* knowledge (i.e., knowledge in current use, in books, in one's mind, in an organization's memory, lectures, case studies, etc.) + *Questioning* (fresh insights into what is not yet known) plus *Reflection* (recalling, thinking about, pulling apart, making sense, trying to understand)(Marquardt, 1999, p. 29). Questions help to create a common goal, strengthen listening, coalesce groups, increase the learning and ensure dialogue.

Revans (1980) describes how his work with the National Coal Board caused him to recognize the critical importance of the reflective inquiry approach. He suggested sidestepping learned experts in favor of having workers and management resolve their own problems. Part of the well-documented success of this effort came from his thesis that "action learning shows its strength, not in finding the answers to questions that have already been posed, but in finding the questions that need to be answered" (p. 118).

The cognitivists emphasize locus of control (which is within the individual) and focus on the learner's mental processes. Questions become a primary way for acquiring knowledge. Argyris and Schon (1978) illuminate the value of questioning and reflection in the learning process when examining the contradictions between espoused theories and theories-in-use. Double-loop learning occurs when one questions his own premises and triple-loop is questioning

one's learning process, both processes resulting in successively deeper levels of learning. The greatest value occurs to the learners when they are reflecting and looking for patterns in behavior, knowledge or process. The reflection process includes relating new information to previously learned knowledge. This can occur when the learner questions his/her structural or fundamental assumptions. The reflective process can take place both during action and after the action has taken place (Schon, 1983).

Behaviorists endorse the action learning reflective process insofar as it serves as guidelines and conditions to the interaction that generates observable learning responses (Mager, 1988). The questions themselves physiologically cause the synapses of the brain to be more open to learning and ideas that, in turn, results in changes in the dynamics of listening and problem solving. In action learning everyone is expected to listen in order to participate and establish an environment conducive to learning. It is important to note, however, that the reflective process is less conducive to behaviorism, which assesses learning by the external evidence of changed behavior or improved performance (Mager, 1988) and does not acknowledge the internal processes which occur during reflection.

The humanist school emphasizes the value of the individual. Group members are open to and seek others' perspectives to seek what is unique in the situation, and search for questions that will help solve the problem and benefit one another. Cooperider, Sorensen, Yaeger and Whitney (2001), through a process they call appreciative inquiry, emphasize questioning and reflection that focus on what is positive and what can be changed.

For proponents of the social learning school, two features distinguish reflective thinking. First, reflective thinking involves a state of doubt, hesitation, perplexity, and mental difficulty. Rather than threatening self-efficacy, these force the learner to generate creative alternatives that preserve self-efficacy. Self efficacy is maintained because the person being questioned is simply encouraged to look at different possibilities. Second, reflective thinking involves an act of searching, hunting, and inquiring to find material that will resolve the doubt as well as settle and dispose the perplexity (Rotter, 1992). Dewey (1933) describes the general features of a reflective experience as including feelings of perplexity, confusion and doubt (i.e., recognition of a problem), making a conjectural anticipation (i.e., establishment of a tentative hypothesis), and performing a careful survey (which occurs through examination, inspection, exploration and

analysis. Questions build a foundation for dialogue, a process which is basic to social learning and action learning.

The constructivist seeks personal meaning from personal experiences. Meaning emerges through the questioning process as details and angles of the problem surface and assumptions and practices are challenged. Inquiries generate changes in perspective. Sensemaking (Weick, 1995) occurs within this component of action learning insofar as it is retrospective (requiring hindsight), occurs along with identity construction, is a social process (in this case taking place in an action set) and depends upon extracted cues from the environment (which in this case could be probes in the form of questions from other set members). Additionally, the act of inquiring about a person's perspectives can cause the person to rethink and initiate new perspectives. Deep transformative learning can occur when people reflect upon the premises for their decisions and actions (Mezirow, 1991, 1998).

*Case Example (continued)*

*Initially the questions came rather hesitantly and reluctantly. Many wanted to use statements and push for their solutions. Occasionally, the action learning coach asked them to turn their statements into, and to listen and reflect before answering (behaviorist). Everyone became involved; oftentimes the younger, inexperienced members had better questions and became more confident and received more support (humanist and social learning). Gradually, the group came to realize that the issue was as much a feeling that employees had had no say in the changes as the difficulty of finding a solution that met the needs of workers, customers, and management (constructivist and cognitive). The members quickly moved from focusing on individual solutions to seeking what would be best for the organization.*

***Power to Take Action***

In action learning, the most valuable learnings occur when action is taken, for one is never sure the idea or plan will be effective until it has been implemented (Pedler, 1997). Revans (1988) states, "…responsible experience alone is the true motivator, the impartial witness, and the final judge of meritorious learning" (p. 11). Members of the action learning group must have the power to take the action themselves or be assured that their recommendations will be implemented by the organization or individual presenting the problem. Action enhances learning because it provides a basis and anchor for the critical dimension of reflection. Most importantly, one action is worth many hours of discussion (Revans, 1980). Kerschensteiner (1933) recognizes the importance of

connecting learning directly with life and work, and the need for learning from the experience with group members as well as the people affected by the action. Learning also occurs as a result of ongoing interaction with the champions and sponsors of action learning in the organization.

Cognitivists deem that the best and deepest learning occurs if we think about what we are doing (reflection-in-action) while we are doing it (Schon, 1983). For the cognitivist, learning must be "within the learner's control" (Merriam & Caffarella, 1999, p. 256), and taking personal action is exerting control.

Behaviorists believe that learning involves the need to take immediate and practical action. According to Thorndike, Bregman, Tilton & Woodyard (1928), the actions taken at this stage represent the response in the stimulus-response learning theory sequence. If changes in behavior indicate learning, the decisive actions taken at this point in the action learning effort indicate learning (Skinner, 1976). For the humanist, learning is most significant when it is relevant, growth-inducing and important to the individual (Maslow, 1968). The resolution to take action (resulting from the action learning process) is what makes it relevant. Learning is that which helps the individual to be self-actualized, and this kind of learning is only acquired through action, which allows the individual to realize his or her own potential (Rogers & Freiberg, 1994).

Social learning theorists emphasize the relevance of learning through experience and the application of knowledge gained in a new situation. Lindeman (1926) writes that "Active participation in interesting affairs furnishes proper stimulations for intellectual growth" (p. 89). Dewey (1916) notes the need for adults to have learning connected to doing. Kolb (1984) explains that testing of concepts in new environments through concrete experiences is important in the cycle of learning.

Mezirow (1991), as a constructivist, identifies two levels of reflective action – lower and higher. The lower or less critical level of reflective action focuses on content (what) and process (how). Premise reflection, which is the higher form of reflective action, enables a perspective transformation and is concerned with *why* we perceive, think, feel or act as we do. Weick (1995) uses the term *enactment* to imply taking action to change the environment. Freire (1973) further contributes to the constructivist perspective with the introduction of the "conscientization" concept where, through acting on what one has learned, there is a deepening awareness on the part of the individual of his or her capacity to transform reality.

*Case Example (continued)*

*Following a systematic examination of numerous issues, potential impacts of actions, and likelihood of success, the group developed three possible solutions (constructivist) which were submitted to employees at the affected sites as well as top management. The alternatives were tested (social learning) as well as refined (cognitivist). Four weeks later, the plants shifted to new schedules which resulted in improved morale among workers (humanist), higher satisfaction for customers, and better earnings stability – a measurable performance benefit (behaviorist) - for management.*

***A Commitment to Learning***

Action learning places equal emphasis on accomplishing the task and on the learning/ development of individuals, teams and organizations. By creatively solving problems, action learning groups have identified strategies and solutions worth millions of dollars to organizations around the world. However, the greater, longer-term, strategic, multiplier benefits of action learning are gained from the learning. As the individuals and group become smarter, they are better able to identify innovative solutions and strategies. The skills and competencies developed individually will serve them in good stead throughout the organization and in their professional lives. Finally, there is the resulting application of the group's learnings on a system-wide basis throughout the organization. Revans (1980) pointed this out in his own experience with the British Coal Board:

> …Any organization ought to be able to learn from its own everyday experience, simply by asking itself what it thinks it is try to do, what is preventing it from doing it and what measures it might take to overcome its problems and to move nearer to its goals … (p. 108).

Action learning is a science in which the group members (all "scientists" in an objective search for the truth) learn about everything that they can that is connected to the problem and can help solve it. The learning is acquired through questions asked by the coach as well as by individual group members requesting feedback from each other. Significant learning occurs through the process of the group discovering together new insights and ideas.

Of course, all five schools of adult learning expound a commitment to learning, but focus on different aspects and demonstrate it in different ways. The cognitivists view learning as the process whereby knowledge is created through the transformation of experience. For them, the commitment to learning is a commitment also to learning "how" to learn -- also called deutero-learning or metacognition (Argyris, 1985; Schon, 1983). In the learning process the cognitivist focuses on the internal process of acquiring, understanding, and retaining information. This form

of learning involves use of mental associations where the learner actively relates incoming information to a previously acquired psychological frame of reference or schemata. The mental associations are then reflected in overt behavior changes. Cognitivists see knowledge acquisition as an active process (Bruner, 1965) and believe that reflection and dialogue are critical in developing the learner (Schon, 1983). As action learning groups search for solutions, detect and correct strategies, and reflect on the learning experience, they fulfill the cognitivists' expectations relative to the active internal processes relative to knowledge acquisition and skill development.

Behaviorists focus on external performance in the area of skill development and behavioral change as the determinants of learning (Skinner, 1976). Setting aside time in action learning groups to focus on clear learning objectives and results meets the concerns of behaviorists who recognize the importance of needs assessment, focused learning objectives, well-designed and delivered learning programs, and measurable results.

Humanists believe man has a natural potentiality to learn (Rogers & Freiberg, 1994). They view learning as most effective when it involves the whole person – both the affective and cognitive aspects. The goal for the humanist is a quest for self-actualization. The humanist's commitment to learning is evidenced by the individual taking responsibility for his/her own learning. The manifestation of a commitment to learning is in self-initiated learning that involves the whole person. Therefore, humanists view the action learning problem as an individual, self-directed learning effort, and the commitment to that effort emerges from a desire to learn better ways to deal with the problem presented.

Social learning theorists believe that significant learning can only come from reflection on deep experiences, and thus are pleased to see how action learning groups transform existing knowledge into new knowledge within the social setting of the group and their influence on one another. Rotter (1992) explains that change occurs only when one has a sense of personal control over one's life. In the action learning process, the learner has control of his/her course of action on the problem. Expectancy of a positive outcome (Bandura, 1986) can create greater learning. Learners in the action learning set take control over the problem they present and that commitment generates the expectancy of a positive outcome.

The constructivists have a commitment to the action learning process because they embrace a very individualized process of knowledge construction and share a belief in the

cumulative nature of learning. Each individual learner is the focus of the action learning process (even though it occurs in a group or set) and for the individual the learning builds with each new questioning/reflecting session. The action learning process highlights ways in which presuppositions have come to constrain the way we perceive, understand and feel about the world (Freire, 1973). Each new session unveils new presuppositions. Each individual's knowledge of the world is based on one's constructed models of reality which are adopted from one's culture, then adapted to the individual's use. The individualized nature of the action learning process provides a logical medium for knowledge construction to take place. Holzkamp (1984) sees learning as the broadening and deepening of the possibilities of the person to live and act (in contrast to learning as imposed and controlled by others). Sensemaking and identity construction take place in action learning sets and in the learning relationships both with the customers of the project (who benefit from the problem solution) and with the sponsors (who promote the development of the learner and the learning within the organization).

*Case Example (continued)*

*The members of the group were advised that this activity was both a problem-solving as well as a learning program. If the group could learn and share together (social learning), they would reach a truly innovative solution. Also, they were expected to learn about themselves as leaders and professionals (cognitive), and to identify learnings that could be applied to their particular work sites and to the organization as a whole. The climate and expectations were established to increase learning and performance (behaviorist); they should seek to learn from each other (social learning), and be aware of the presuppositions and filters that hindered or helped their learning (constructivist). Consequently, everyone could and did become concerned with helping each other learn and develop themselves (humanist).*

***Action Learning Coach***

It is important that the action learning group regularly pause from working on the task so as to reflect on their experience so as to capture and apply their learnings. Marquardt (2004) has discovered that if one of the group members (referred to as an action learning coach) focuses solely on the group's learning and not on the problem, that the group will more quickly become effective both in problem-solving abilities and in group interactions. Revans (1998), it is critical to note, was very wary of action learning groups becoming dependent on facilitators or professional educators, feeling that their presence could hinder the group's growth. To offset

this potential negative impact, the action learning coach *only* asks questions, and focuses on questions that are related to the learnings (a) of the *group* (e.g., What are our strengths as a group thus far? What could we do better? What is the quality of our questions); (b) of the *individual* (What have we learned about ourselves? What leadership skills have been demonstrated?); and (c) of the *organization* (What have we learned that we could apply to our organizations? What elements of the organization's culture cause these obstacles?)

The person serving as the action learning coach may be a working group member or an external participant. Through her questions, she helps group members reflect on how they listen, how they may have reframed the problem, how they give each other feedback, how they are planning and working, and what assumptions may be shaping their beliefs and actions. The coach also helps participants focus on what they are achieving, what they are finding difficult, what processes they are employing, and the implications of these processes (Marquardt, 2004; O'Neil, 1999). The action learning coach must have the wisdom and self-restraint to let the participants learn for themselves and from each other. Revans (1980) noted the value of this approach when he stated: "The clever man will tell you what he knows; he may even try to explain it to you. The wise man encourages you to discover it for yourself" (p. 9).

The use of an action learning coach connects to the principles and theories from each of the five schools of adult learning. Cognitivists emphasize the importance of intentionality to optimize learning. It is the responsibility of the action learning coach to assist, through questions, group members in the process of reflecting on how they listen, reframing the problem, examining assumptions, and generating the learning.

The presence of a coach with the power to intervene with questions related to the group's learning aligns with the behaviorists' belief in operant conditioning (Skinner, 1976). The presence of the coach induces members to behave in a manner conducive to learning; e.g., statements are made rather than questions; periodic interventions by the coach that focus on norms and learnings. Set members recognize that the coach will be asking for what they have learned so they will be subconsciously thinking about how to respond to such a question.

For the humanists, the action learning coach is present to facilitate and accelerate the full development of the whole person. The coach does not judge, but asks the members to determine for themselves what they have done well, what they have learned, and how they can improve as a team and as individuals.

The role of the facilitator for those in the social learning school is one of modeling and guiding new behaviors (Bandura, 1977). The coach models desired behavior by asking open-ended, fresh, and clear questions. The coach does not become an external locus of control (Rotter, 1954, 1992); rather his/her role is to facilitate the process for the learners to learn from each other.

Constructivists would see the action learning coach as one who "facilitates and negotiates meaning with the learner" (Merriam & Caffarella, 1999). In the action learning set, the coach enables the group members to make meaning of their learning by helping the participants both with the process (asking questions, reframing, providing feedback) and by challenging assumptions. The coach's actions are collaborative and provocative of thought rather than directive (Mezirow, 1991). The coach assures that the members individually and the group as a whole identifies how they will be able to apply their new values and learnings in the workplace and in the community.

*Case Example (continued)*

*Throughout the sessions a person served as a learning coach who focused on helping the group reflect on learning. His very presence (behaviorist) alerted everyone that time and effort would be spent in learning, that he would be assisting them to seek creative "breakthrough" thinking and strategies (cognitivist), and encourage everyone to learn from one another (social learning). The coach would be a model by only asking positive, supportive questions (humanist) so as to help members understand and improve the work of the group and to apply learnings throughout the organization (constructivist).*

**Contributions to Human and Organizational Sciences**

The power and success of learning that occurs within the action learning process can be attributed to the fact that it incorporates so many different and disparate theories of learning. This conceptual analysis and synthesis of how the theories and principles of the five different adult learning orientations contribute to the learning power of action learning provides a number of important contributions to the field of human and organizational sciences. Managers, teachers, social workers, and consultants alike can have a greater understanding of the learning potential of action learning, and better utilize this powerful process in their work. The impact of action learning in developing individual, teams, organizations and communities will be enhanced. Action learning, because of its flexibility in learning, can be applied in a variety of ways and settings, both face-to-face and virtually.

Action learning is such a powerful learning tool because its six components interweave and incorporate so many of the principles and theories of each of the five schools of adult learning. Action learning stimulates learning at the individual, team and organizational levels. Action learning principles, such as questioning/reflection, can be applied at an interpersonal, within-group, between-groups or organizational level. Rather than highlighting the differences between the schools of learning, action learning accents the basic commonalities.

Although some of the components may be more aligned to one school than another, taken in their entirety, action learning has the amazing capacity to utilize and synergize a wide array of diverging as well as complementary forces. Thus, the action learning process serves as a bridge between the different adult learning schools, rather than a wall. Action learning demonstrates how one methodology and approach can satisfy the key conditions necessary for learning established by each of the different schools.

## References


Argyris, C. (1982). *Reasoning, Learning, and Action: Individual and Organizational*. San Francisco: Jossey-Bass.

Argyris, C., Putnam, R., & Smith, D. (1985). *Action Science*. San Francisco: Jossey-Bass.

Argyris, C. (1991). Teaching smart people how to learn. *Harvard Business Review*: 99-109.

Argyris, C. & Schon, D. (1978). *Organizational learning: A theory of action perspective*. Reading, MA: Addison-Wesley.

Bandura, A. (1977). *Social learning theory*. Englewood Cliffs: NJ, Prentice-Hall.

Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Englewood Cliffs, NJ, Prentice-Hall.

Bandura, A. (1989). *Social cognitive theory. Annals of child development*. R. Vasta. Greenwich, CT: Jai Press, Ltd. 6: 1-60.

Bannan-Ritland, B. (2003). An action learning framework for teaching instructional design. Performance Improvement Quarterly 14 (2) 37-52.

Brown, J. S., & Duguid, P. (1991). Organizational learning and communities of practice: Toward a unified view of working, learning, and innovation. *Organization Science, 2*(1), 40-57.

Brown, J. S. and P. Duguid (2000). *The social life of information*. Boston: Harvard Business School Press.

Bruner, J. (1965). *In defense of verbal learning. Readings in the psychology of cognition*. New York: Holt, Rinehardt & Winston.

Candy, P. C. (1991). *Self-direction for lifelong learning: A comprehensive guide to theory and practice*. San Francisco: Jossey-Bass Publishers.

Charters, A. N. and R. J. Hilton, Eds. (1989). *Landmarks in international adult education: A comparative analysis*. London: Routledge.

Confessore, G. J. & Confessore, S.J. (1992). *Guideposts to self-directed learning*. King of Prussia, Pennsylvania: Organization Design and Development, Inc.

Cooperider, D., Sorensen, P., Yaeger, T. & Whitney, D. (2001). *Appreciative inquiry: An emerging direction for organization development*. Champaign, IL: Stipes Publishing.

Coghlan, D. (2002). Inter-organizational OD through action learning. *OD Practitioner*, 34 (1), 2002, 26-30.

Coughlan, P. D. Coghlan, T. Dromgoole, D. Duff, R. Caffrey, K. Lynch, I. Rose, P. Stack, A. McGill & P. Sheridan, (2002). Effecting operational improvement through inter-organisational action learning. *Integrated Manufacturing Systems,* 13 (3), 131-140

Dewey, J. (1916). *Democracy and education*. New York: The Free Press.

Dewey, J. (1933). *How we think*. New York: D.C. Heath.

Dewey, J. (1938). *Experience and education*. New York: Kappa Delta Pi.

Dilworth, R. L. (1998). Action learning in a nutshell. *Performance Improvement Quarterly* 11(1): 28-43.

Dilworth, R. L. & V. J. Willis (2003). *Action learning: Images and pathways.* Malabar, FL: Krieger.

Dotlich, D. and J. Noel (1998). *Action learning: How the world's top companies are re-creating their leaders and themselves*. San Francisco: Jossey-Bass.

Flannery, D. D., Ed. (1993). *Applying cognitive learning theory to adult learning*. New Directions for Adult and Continuing Education. San Francisco: Jossey-Bass.

Freire, P. (1973). *Education for critical consciousness*. New York: Seabury Press.

Gagne, R. M. (1965). *The conditions of learning*. New York: Holt, Rinehart & Winston.

Global Institute for Action Learning (2003). The power of action learning. Retrieved August 16, 2003 from http://www.managementconcepts.com/gial/power.asp.

Gregory, M. (1994). Accrediting work-based learning: Action learning -- A model for empowerment. *The Journal of Management Development* 13(4): 41.

Hergenhahn, B. R. (1988). *An introduction to theories of learning*. Englewood Cliffs, NJ: Prentice Hall.

Holzkamp, K. (1984). Humans do not sit in capitalism as in a cage. *Psychology Today*. (11), 29-40.

Kerschensteiner, G. (1933) Theorie de Bildungsorganisation.

Knowles, M. S. (1970). *The modern practice of adult education: Andragogy vs. pedagogy*. New York: Association Press.

Knowles, M. S. (1984). *Andragogy in action*. San Francisco: Jossey-Bass Publishers.

Kolb, D. A. (1984). *Experiential learning*. Englewood Cliffs: Prentice-Hall, Inc.

Lave, J. & Wenger, E. (1990). *Situated learning: Legitimate peripheral participation*. Palo Alto: Institute for Research on Learning.

Lenderman, H., Lastar, F., and Lenderman, R. (2003). *Performance-based degrees earned at work: The Sodexho university story*. East Lothian: Prestoungrange Press.

Lindeman, E. C. (1926). *The meaning of adult education*. New York: New Republic.

Mager, R. F. (1988). *Making instruction work*. Belmont: David S. Lake Publishers.

Marquardt, M. J. (1996) Action learning: Foundation for organizational learning and corporate success. *Training & Development in Australia* (November, 1996), 7-12.

Marquardt, M. J. (1998) Using action learning with multicultural groups. *Performance Improvement Quarterly* 11 (1): 112-127.

Marquardt, M. J. (1999). *Action learning in action: Transforming problems and people for world-class organizational learning*. Palo Alto: Davies-Black Publishing.

Marquardt, M. J. (2000). Action learning and leadership. *The Learning Organization,* 7, (5): 233-240.

Marquardt, M. J. (2003). Developing global leaders via action learning programs: A case study at Boeing. *Thai Journal of Public Administration* 3 (3): 133-157.

Marquardt, M. J. (2004). *Optimizing the power of action learning*. Palo Alto: Davies-Black Publishing.

Marquardt, M. J. & Berger, N.O. (2000). *Global leaders for the 21st century.* Albany, NY: State University of New York Press.

Marsick, V. J. (1992). Experiential-based executive learning outside the classroom. *Journal of Management Development* 9(5): 50-60.

Marsick, V. J. & O'Neil, J.A. (1999). The many faces of action learning. *Management Learning* 30(2): 159-176.

Maslow, A. H. (1968). *Toward a psychology of being*. New York: Van Nostrand Reinhold.

McKenna, J. (1992). Learning in adulthood by Sharon B. Merriam and Rosemary S. Caffarella. *The Journal of Consumer Affairs* 26(1): 207.

Mead, G. H. (1934). *Mind, self, and society*. Chicago: University of Chicago Press.

Merriam, S. B., & Caffarella, R. S. (1999). *Learning in Adulthood* (Second Ed.). San Francisco, California: Jossey-Bass.

Mezirow, J. (1991). *Transformative dimensions of adult learning*. San Francisco: Jossey-Bass.

Mezirow, J. (1998). On critical reflection. *Adult Education Quarterly* 48(3): 185-198.

Mumford, A. (1991). Learning in action. *Personnel Management* 23(7): 34-40.

Mumford, A. (1995). Managers developing others through action learning. *Industrial and Commercial Training* 27(2): 19.

Orr, J. E. (1990). Sharing knowledge, celebrating identity: Community memory in a service culture. In D. M. D. Edwards (Ed.), *Collective Remembering*. Newbury Park, CA: Sage Publications, Inc.

Ormond, J. (1999). *Human learning*. Upper Saddle River, NJ: Prentice Hall.

O'Neil, J. A. (1999). The role of the learning advisor in action learning. *Education Adult and Continuing Education.* New York: Columbia University Teachers College.

Pedler, M., (Ed.) (1997). *Action learning in practice*. Aldershot: Gower.

Revans, R. W. (1980). *Action learning: New techniques for management*. London: Anchor Press.

Revans, R. W. (1982). *The origin and growth of action learning*. London: Chartwell Bratt.

Revans, R. W. (1988). *The golden jubilee of action learning: A collection of papers written during 1988*. Manchester: Manchester Action learning Exchange.

Revans, R.W. (1998) *The ABC of action learning.* London: Lemos & Crane.

Rossett, A. (1999). Action learning in action: Transforming problems and people for world-class organizational learning." *Personnel Psychology* 52(4): 1100.

Rogers, C. & Freiberg, H.J. (1994). *Freedom to learn*. New York: Macmillan College Publishing Company.

Rotter, J. B. (1954). *Social learning and clinical psychology*. Englewood Cliffs, NJ: Prentice-Hall.

Rotter, J. B. (1992). "Cognates of personal control: Locus of control, self-efficacy, and explanatory style: Comment." *Applied and Preventive Psychology* 1(2): 127-129.

Salopek, J. J. (1999). "Action learning in action: Transforming problems and people for world-class organizational learning." *Training and Development Journal* 53(4): 58.

Schein, E. (1988). *Process Consultation*. Boston: Addison-Wesley.

Schon, D. (1983). *The reflective practitioner: How professionals think in action*. New York: Basic Books.

Schon, D. A. (1987). *Educating the reflective practitioner*. San Francisco: Jossey-Bass.

Shelton, K. (1999). Straight talk for teams. *Executive Excellence*, 16 (5), 2.

Skinner, B.F. (1976). *About behaviorism*. New York: Vintage.

Stone, D. (1998). *Social cognitive theory*. Tampa: University of South Florida Press.

Swanson, R. A. & Holton, E. (2001). *Foundations of human resource development*. San Francisco: Berrett-Koehler Publishers, Inc.

Thorndike, E. L., Bregman, E. O., Tilton, J. W., & Woodyard, E. (1928). *Adult Learning*. New York: Macmillan.

Weick, K. E. (1979). *The social psychology of organizing*. New York: McGraw Hill.

Weick, K. E. (1995). *Sensemaking in organizations*. Thousand Oaks: Sage Publishing.

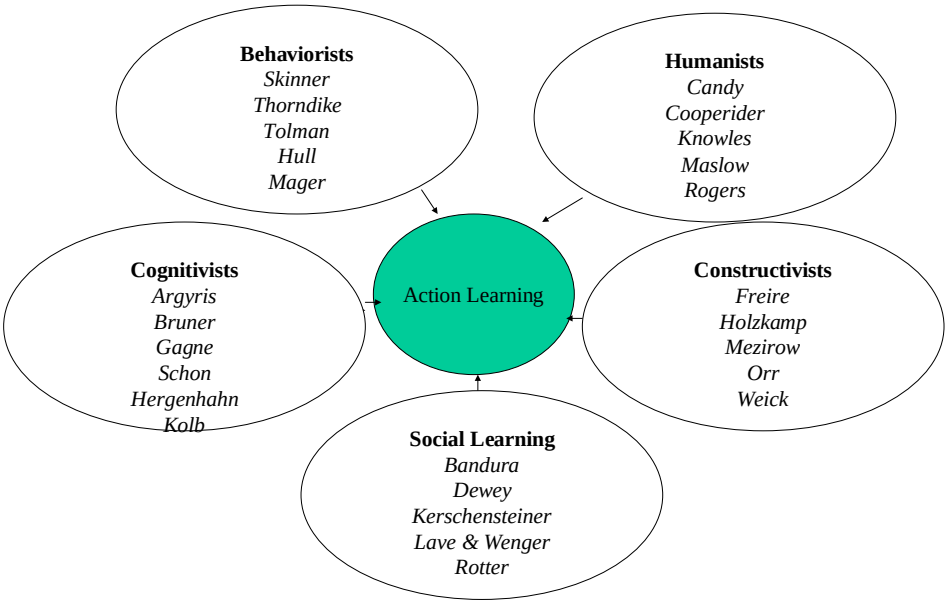
Weinstein, K. (1995). *Action learning: A journey in discovery and development*. London: Harper Collins.

Wenger, E. C., McDermott, R., & Snyder, W. M. (2002). *Cultivating Communities of Practice*. Boston, Massachusetts: Harvard Business School Press.

Yorks, L., O'Neil, J., & Marsick, V. J. (1999). *Action learning: Successful strategies for individual, team, and organizational development*. San Francisco: Berrett-Koehler.

## Figure 1

**Action Learning and Schools of Adult Learning**



## Figure 1: Action Learning Components and Adult Learning Orientations

| Action Learning Components | Adult Learning Orientations | | | | |
|---|---|---|---|---|---|
| | **Cognitivist** | **Behaviorist** | **Humanist** | **Social Learning** | **Constructivist** |
| **Action learning components** | Argyris, Bruner, Gagne, Hergenhahn, Kolb, Mead, Schon, Bandura | Mager, Skinner, Thorndike, Hull, Tolman | Candy, Cooperider, Knowles, Maslow, Rogers | Bandura, Dewey, Lave & Wenger, Lindeman, Rotter | Brown & Duguid, Candy, Freire, Kolb, Mezirow, Orr, Weick |
| **1. Focus on problem, task, or challenge**<br>• Important an critical to person, team, and/or organization<br>• Feasible and within authority and/or responsibility of group | • Problem is trigger for internal mental process of learning<br>• Two types of problems –solved and unsolved | • Problem as external stimulus | • Self-directed learners can perceive a problem as a learning opportunity<br>• Learning orientation is problem-centered and contextual | • Immediacy and practicality encourages learning<br>• Social interaction and collaboration to address problem<br>• Situated learning environments transfer to real-life | • Knowledge and skills are learned in the contexts that reflect how knowledge is obtained and applied at work<br>• Problem-posing learning<br>• Problem can be a disorienting dilemma |
| **2. Diverse, small group (or set)**<br>• 4-8 members<br>• Diverse perspectives<br>• May be from outside as well as within organization | • Each contributes individually<br>• Value of diversity and perspectives<br>• Individual behaviors indicate shared cognitive understanding of objects or activities | • Small group provides the environment for learning<br>• Pressure from group (and learning coach) to observe norms | • Individual contributions promote self-actualization<br>• Support and caring for group members enhances human development | • Interacting and observation of others in a social context is a basis for modeling<br>• Legitimate peripheral participation<br>• Observational learning (SCT) | • Group constructs norms for itself<br>• Unfamiliarity may cause transformative learning, enables challenging assumptions<br>• Communities-of-practice (COPs) |
| **3. Reflective inquiry process**<br>• Focus on questions before solutions<br>• Seek to understand as well as to advocate<br>• Seek wide systems perspectives to problem and strategies<br>• Seek to learn as well as to act | • Espoused theories vs. theories in use<br>• Double and triple-loop learning occur<br>• Reflecting on action; looking for patterns and reflecting deeply<br>• Relating new information to existing | • Rules for the process<br>• Questions cause synapses of brain to be more open to learning<br>• Prevents domination of any individual<br>• Allows all to participate | • Open to and seeks others' perspectives<br>• Appreciative inquiry (questions what can be changed) | • Questioning generates doubt which spurs reflective thinking<br>• Reflection generates perplexity; survey of solutions<br>• Questions build group cohesion; the foundation for dialogue | • Construction of meaning from experience<br>• Observations and perspective are critical<br>• Sensemaking<br>• Others' challenges may change perspective<br>• Premise-reflection |

| Action Learning Components | Adult Learning Orientations | | | | |
|---|---|---|---|---|---|
| | **Cognitivist** | **Behaviorist** | **Humanist** | **Social Learning** | **Constructivist** |
| | | | | | |
| **4. Power to take action**<br>• Action is necessary to determine value of strategies<br>• Action provides opportunities for additional learning | • Reflection-in-action<br>• Actively involved in learning process<br>• Action should be within the learner's control | • Take immediate and practical action<br>• Role of connectionism | • Learning is significant when relevant<br>• Learning is acquired through doing | • There is no true learning without action<br>• Enactive mastery<br>• Application of knowledge to new situations | • Action may cause perspective transformation<br>• Concrete experience<br>• Enactment creates an environment<br>• Conscientiza-tion |
| **5.Commitment to individual, team, and organizational learning**<br>• All members are expected to learn and apply learnings<br>• Knowledge, skills, attitudes, and values learned | • Duetero-learning or metacognition<br>• Focus on internal process of acquiring, understanding, and retaining information<br>• Learning to check adequacy of knowledge<br>• Detect and correct errors | •Committed to skill develop-ment and producing behavioral change<br>•Time set-aside for learning | • Learning involves the whole person – affective and cognitive<br>• Seek to become self-actualized<br>• Responsibility for own learning<br>• Self-initiated, self-directed learning lasts | • Learning comes from reflection on deep experiences by those committed to personal control over action to rectify the problem<br>• Commitment to learning comes with involvement with others | • Construction of knowledge by each person<br>• Cumulative nature of learning committed to individually constructed models of reality<br>• Presupposi-tions questioned |
| **6. Action learning coach/ facilitator**<br>• Focuses on the learning rather than the task<br>• Assures that norms are being followed | • Structure the content and learning activity to acquire information | • Guides learning; creates operant conditioning of desirable behaviors | • Supports individual ability to determine content, application, and importance of learning<br>• Allows learners to identify what they have done well | • Models behavior of questions<br>• Guides the group in learning from others<br>• Is not an external locus of control | • Helps members make meaning of their learning both through questioning and reframing process and by challenging assumptions<br>• Collaborates |