

**Transformative education and learning: Toward an understanding of how humans learn.**

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**Date of Completion: 09/01/2019**

## **Abstract**

This paper presents innovative concepts and approaches on human transformative education and learning. The author relies on the works of well-known scholars such as Dewey (2009), Boud and Walker (1998), and Mezirow (1990; 1991; 1997), among others. The overarching views throughout this paper are that learning is not universal and that transformative education and learning require a conscious effort from both educators and learners to foster transformation. The author argues that education and learning should encompass the practice of mitigating or authenticating previously learned constructs (e.g. knowledge, beliefs, values, ideas, perception, etc.) through reflection. To that end, the author focuses his on four key elements of analysis: 1) our early template; 2) how we understand our experiences; 3) two domains of learning; and 4) the role of reflection in the transformative learning. The author concludes that an important aspect of learning comprises the practice of mitigating or authenticating previously learned knowledge or thoughts to fashion current and future behaviors.

*Keywords:* adult education, education, communicative learning, instrumental learning, learning, reflection, transformative education, transformative learning

## **Introduction**

In the context of new pressure to transform the educational system in the US, both educators and policy makers are continuously searching for ways to address the needs of learners in order to provide them with the most effective learning experience. Hence, the concept of transformative learning has gained ground as one the prevalent ways forward. Scholars such as Dewey (2009), Boud and Walker (1998), and Mezirow (1990; 1991; 1997), among others, have contributed tremendously to the idea of using transformative learning through reflection to improve education and learning.

This paper presents different theories about education and learning in an attempt to help the reader understand new trends toward transformative education. The works of several scholars drawn from a variety of disciplines are used to introduce the reader to theories about transformative education, with particular attention given to adult learning. To accomplish the task, the paper is divided into four sections: analysis of weltanschauung: 1) our early template; 2) how we understand our experiences; 3) two domains of learning (instrumental and communicative learnings); and 4) the role of reflective leadership in transformative education and learning. Each section provides insights into the understanding of transformative education and learning.

### **Analysis of Weltanschauung: Our Early Template**

Formal education came into being in the Western world during the 16<sup>th</sup> century Europe when social, political, economic, and religious institutions required advance skills and knowledge that families did not necessarily possess (Ballantine & Roberts, 2015). Since then, formal education has emerged as a universal phenomenon. What is considered important knowledge to be taught in schools is based primarily on a culture's level of development, its history, cultural values, and political ideologies. Nowadays, educational institutions shape our worldview through

socialization from the time of our early lives and on. It is the school experience, in part, that teaches us to define our meanings in life and the values that fashion our decision making process.

According to Mezirow (1997), an important aspect of adult education comprises the practice of mitigating or authenticating previously learned knowledge or thoughts. It is culture that provides us with the context and the construct for interpreting and giving meanings to those ideas. Hence, “Culture can encourage transformative thoughts” (Mezirow, 1991, p. 3). In any discussion about teaching and learning, one should call upon Rabelais and Montaigne. Rabelais, according to the letter to his son Pantagruel Gargantua, wanted him to become a man whose head is filled with as much information as possible, regardless whether he understands it or not. Whereas, Montaigne preferred a son who understands what he was taking in rather than just memorizing the information. To Mezirow (1997), learning takes place by creating meaning through interpretation. Mezirow explains that “The most important human faculty is the ability to understand our experience as an active participant” (p. 11). One of the main criticisms of an educational system that advocates a teacher-centered approach to teaching and learning is that the learners experience with the material is too limited. Critics of teacher-centered approaches argue when students are not part of the learning process, their learning experience would be limited. It is important to acknowledge the fact that human being could be rational in his own learning. Rationality, according to Mezirow (1997), “Is predicated upon the fact that knowledge has a propositional structure... Rationality has less to do with possession of knowledge than with learning and action” (p. 25). We are constantly changing and adopting new paradigms in order to affect our own experiences. One of the most important elements that differentiate human beings from other animals is the ability to modify our environment based on previously learned experiences.

The problems of teaching and learning can be addressed in an intelligible fashion if we rely on what is known from research and theories about how humans learn new information. Based on the transformative theories presented by Mezirow (1997), this means we analyze our own experience, adjust and accommodate new paradigms, and embark into new ways and forms of learning. A friend of mine had shared an important early experience that had shaped his understanding of the external world. It took place when he joined the Boy Scouts when he was about 15 years old. He comes from a very patriarchal and stratified community in the Caribbean. Both of his parents were government workers in the village where they lived—a very high social status in their village at the time. They were economically well off because his parents owned a lot of lands and other material possessions. He mentioned that he was taught at an early age that he was superior to other kids in the village. He was prevented from interacting with certain kids because their parents were not as fortunate as his. He became very aristocratic as a result. However, when he became a member of the Boy Scouts, his worldview started to change. According to him, he was fortunate enough to interact with some of those same kids whom he was told to avoid in the village. He came to see them differently. As a matter of fact, there were certain tasks they were better at than him, because their parents used to take them into nature and taught them important survival skills. In a sense, he felt inferior to them because he couldn't survive on his own, especially when they went to the countryside for camping.

At camps, they were taught to embrace one another as they were called brothers. They would go into other villages to provide needed services to the least fortunate. His interactions with his fellow Scouts made him realize that he wasn't superior to his friends as he was taught at home. He then became an Altar Boy where he found new ideas from the Scriptures about inclusiveness and love for others. Those experiences transformed him. He no longer holds his

parents' misperception any longer. Nowadays, he considers himself a humanist—one who sees humankind as one species. His experience has made him very sensitive to human suffering—he is now more open and available to help those in need.

From a transformative standpoint, it is important to recognize that teaching is more than lecturing. In adult education, it means creating an atmosphere that removes barriers to learning and shifts the responsibility of successful learning to a partnership between students and teachers. This new teaching-learning approach has the potential to change the learning environment from a teacher-centered experience to a learning community where both instructors and learners have reciprocal control and accountability for learning.

Based on my experience and my current situation as an educator, it is my view that learning is more than memorizing someone else's words. It should be more about understanding and being able to use that understanding to access higher faculties. With this vision of teaching and learning, one should be able to build confidence in the learning process. When I was a public school teacher in urban New York City, I worked in schools and programs where student involvement was not fostered. Those schools experienced drastic drops in student performance. Schools that created communities of learners (student involvement in teaching and learning the process) were more successful.

### **How We Understand Our Experiences**

From a sociological approach, we are not born with our experiences, they must be learned. They are learned through our interactions with those with whom we share our culture. It is socialization that provides us with the context for understanding our experiences. Meanings, for instance, are constructed and must be learned from our significant others (parents, friends,

teachers, or anyone who is important to our socialization) and from our generalized others (the social norms) or members of a group or even an entire society. According to Vygotsky (1978),

*“Every function in the child’s cultural development appears twice: first, on the social level, and later, on the individual level; first, between people (interpsychological) and then inside the child (intrapsychological). This applies equally to voluntary attention, to logical memory, and to the formation of concepts” (p.57).*

In social sciences, this approach is often referred to as symbolic interactionism—the way we create meanings through established symbols and social norms (Schaefer, 2014). From that view, nothing has a meaning in itself—meanings come from a common understanding of our shared realities. Such common understandings enable us to establish a purpose for coming together for the health and maintenance of the community. However, over time, groups can negotiate meaning and in the process, some misinterpretations may occur because of the fact that we have been constructed to value our cultural preferences more than those of others. Something that may appear obvious to us might be far from reality. How do we make out meanings from that standpoint? This is where science differs from common sense.

From a scientific standpoint, something is not factual simply because everyone knows it. Assumptions must undergo scientific scrutiny and testing before they can be viewed as facts. Sometimes, people are brought up with beliefs that they take for granted—they never question them, when in fact they may be misled by those beliefs. Mezirow (1991) taught us the importance of transforming our unconscious assumptions into explicit assumptions so they can be measured. Measuring them requires that they undergo the process of comparison through systematic reasoning—looking at what others have done and see what results they have yielded is a great place to start. Some people still believe the earth is the center of the universe, when in

fact new knowledge has shown that we represent less than a pinhead in space, among the stars. Piaget (as cited by Mezirow, 1997) advised us to learn how to reason, through interactions, as part of our socialization process. As we become more cognizant and learn more of our positions in society, we tend to change those false assumptions through rationality.

The meaning perspective, according Mezirow (1997), “Provides us with criteria for judging and evaluating right and wrong, bad and good, beautiful and ugly, true and false, appropriate and inappropriate” (p. 42). In our postindustrial social structures and in the context of capitalism, our experience is shaped primarily by social institutions (schools, media, religion, sport, etc.) that have increasingly taken on a role of agents of socialization. Those institutions shape our *schema* of things. They provide us with the technical skills to become reflective by helping us to get rid of our preconceived knowledge that may or may not reflect generally accepted facts.

I agree with Mezirow (1991) in his analysis of capitalism and its individualistic way of looking at the world. Mezirow noted that,

*“This organization of our personality is a process whereby some things have to be valued more than others, some acts have to be permitted, others forbidden, some lines of conduct have to be closed, some kinds of thoughts can be entertained, others are taboo—and so on. Each person literally closes off his world, fences himself around, in the very process of his own growth and organization. When that happens, the individual is transformed into a self-centered “Machine, whose primary goal for interacting with other is the accumulation of personal goods at the expense of group solidarity” (p. 51).*

A society and its institutions, especially the political and economic systems, do not exist in a vacuum. Someone or some group makes important decisions about how to use resources and



how to allocate and access goods and services. According to Karl Marx, the protestant work ethic (ideology) serves the interest of the dominant class—the essence of capitalism as an economic system. It keeps members of subordinate groups in lower statuses in the structure, thereby creating a need for people to constantly be working. Hence, this supplies the capitalist ruling class with a means for making more profits. And, the system, through its institutions, conditions individuals to conform to the dominant ideologies in order to facilitate its smooth application. For instance, most Americans hold the view (supposition) that having a family, a nice car, and a house means living the American Dream. This assumption is engrained in the protestant work ethic popularized by the religious reformist John Calvin. In Sorokin's (1992) view,

*“This fully developed sensate system of truth and cognition is inevitably materialistic, viewing everything, openly or covertly, in its materialistic aspects. This system of truth construction is what leads to the nominalistic and singularistic ways of thinking that define sensate societies (p. 60).*

In most social structure, not everyone will agree with a specific construct. The rational choice theory argues that individuals have agency to make rational decisions by weighing costs and benefits of their actions (Ballantine & Roberts, 2015). I should point out that because someone perceives an action to be rational from their vantage point doesn't necessarily make it so. Some would argue that instilling this level of thinking in people is important for the system to survive. Capitalism wouldn't survive as a system if individual members did not believe and buy into it. Individualism and the work ethic serve the need to maintain the system by doing what Marx called brainwashing the masses to benefit the dominant or elite groups (Kerry & Stein, 2016).

Mezirow (1997) suggested that “Because meaning perspectives are structures of largely pre-rational, unarticulated suppositions, they often result in distorted views of reality. Negation or transformation of inadequate, false, distorted or limited meaning perspectives or schemes, is central to adult learning” (p. 62). This involves a testing of fundamental assumptions rather than mere extension of knowledge. In order to deconstruct false assumptions, individuals must first recognize that they are living in a distorted reality. Then, with support and help from those who have the skills necessary to change their previously constructed false reality, they can learn the truth.

### **Two Domains of Learning**

What makes us who we are is an intriguing inquiry. For years, scientists have been pondering this question and many theories have been developed as a result. According to Schaefer (2014), we learn who we are by interacting with others in the social sphere. He went on to say that socialization provides us with the context for understanding our experiences and, consequently, affects our learning. Certainly, social scientists like Mead, Cooley, Piaget, and Mezirow, among others, have written extensively about the individual and learning. Mezirow (1991), for instance, talked about the role that habits of expectations, which he referred to as the meaning perspective, play in the learning process. “Our meaning perspective filters the way we project our symbolic models imaginatively to construe what is presented through our senses” (Mezirow, 1991, p. 38). Although there isn’t any sense of universal agreement on how we learn, one thing is certain: learning cannot take place outside of social interactions because we need social inputs to make sense of our realities.

Learning, according to Mezirow (1997), takes place multidimensionally. Two important aspects of learning that must be understood in order to be able to help others in the process are instrumental learning and communicative learning.

Instrumental learning theory is related to learning psychology. It is generally applied to depict how organisms learn. According to the theory, organisms learn to behave in certain ways from experiencing the consequences which follow a given behavior. The theory was first popularized by psychologist Edward Lee Thorndike (1931). It is concerned with explaining the relationship between stimulus, response, and reinforcement (Nguyen & Walker, 2016). When students fail to learn, teachers, school administrators, and policy makers look to see what is wrong with the students rather than the materials they were exposed to (Schwebel, 1968).

Human's responses to stimuli are learned. If someone didn't experience a reality, it is likely he or she couldn't learn nor understand it. Crede et al. (2010), for instance, noted the positive relationship between school attendance and average grades. Learners who consistently attend their educational sessions are more likely to understand the materials than those who are less consistent (Crete et al., 2010).

According to Mezirow (1997), instrumental learning requires control and manipulation of the learning environment. It is in fact "learning to manipulate or control the environment or other people to enhance efficacy in improving performance" (Mezirow, 1997, p. 6). To do so, Mezirow promulgated that we must be able to use hypothetical-deductive reasoning. "When talking about hypothesis, it is important to call upon the scientific method which is at the core of individuals' learning, at least at the formal/structured organizational environment (or structured organizations) level" (p. 7). Hypothesizing allows us to create relationships between our experiences in order to better understanding how they influence us. For instance, we can

hypothesize that the higher one's educational degree, the more money he/she will earn. Using research, we are able to test and verify the validity of such a claim.

Too often we make assumptions about what ought to be and start acting upon those assumptions without verifying whether or not they work. However, what seems to be factual to some may not hold under scientific scrutiny. In an article entitled *When Education Research Matters*, Hess (2008) described the importance of scientific inquiries in fashioning educational policies. To him, it is not enough for policy makers to use research to base their policy decisions. They must, first and foremost, understand the nature of the research at hand in relationship to their educational needs. He cited the STAR pilot research that the state of Tennessee used in the late 1980s to reduce class sizes in some targeted schools. Educational leaders spent \$12 million on STAR between 1985 and 1989 to study the effects of class size on student learning (Hess, 2008). Researchers observed significant improvements for students in small kindergarten classes and supplemental gains in first grade classes, particularly for minority students. These gains continued through middle school (Hess, 2008). Based on the success registered in Tennessee, policymakers in California adopted the STAR findings and applied them statewide. Policy makers in California, especially legislators, were zealously wanted to implement a class size reduction program in 1996, they adopted the Tennessee model. The program cost \$771 million the first year and \$1.7 billion annually by 2005 (Hess, 2008). The only major evaluation of the California program conducted by the American Institutes for Research and the RAND Corporation, found no impact on student achievement in the state. What is going on here? Policy makers and educational leaders in California failed to understand the nature of scientific research in relationship to their own needs to change their crumbling and underperforming school system. Because they failed to ask the critical questions, they were unable to spot potential problems in

the implementation of the STAR findings. If learning to manipulate or control the environment or others to enhance efficacy in improving performance is key to instrumental learning, policy makers in California did a terrible job.

If instrumental learning takes place through an understanding of our individual and collective experiences, communicative learning is the process through which we arrive at that understanding. According to Mezirow (1997), “Communicative learning implicates the understanding of others in the process. And this is done through communication in order to remove misconceptions, cultural difference that can impede understanding, and false assumptions in order to come to a greater understanding of what is needed to be done to facilitate learning” (p. 96). He went on to say that “Communicative action occurs whenever an individual communicates with others in order to arrive at an understanding about what the meaning of a common experience...During communicative action it becomes necessary to test validity claims made by utterance” (p. 96).

Communicative action is very important in the learning process. Although all individuals use language symbolically, there is no universal meaning attached to a particular symbol. Understanding can only be generated through common interpretations of our experiences, which can only take place through communication via interactions. This allows us to arrive at our long-held beliefs in order to transform our perspective. Let’s say, for instance, the policy makers in California took their time to communicate with the researchers who conducted the STAR project. It is certainly that they would have been warned of the dangers that exist in using one study in another social context that is different from that of which the study was designed for. They would have been more rational in their decision making process. “Rationality is validity testing by reasoning—using reasons and weighing evidence and supporting arguments—rather than

appealing to authority, tradition, or brute force.” (Mezirow, 1991, p. 96). By communicating effectively we can break barriers that tend to prevent us from making collective and “smarter” decisions.

“The essential learning experience required to prepare a productive and responsible worker for the twenty-first century must empower the individual to think as an autonomous agent in a collaborative context rather than to uncritically act on the received ideas and judgments of others” (Mezirow, 1997, p. 8). Both instrumental and communicative learning shape our autonomous agency. We draw upon both instrumental and communicative experiences to construct our individual understanding of the realities we experience. Educators' interpretation and construction of inclusive practice are engrained in the central beliefs in both communicative and instrumental practices. Educators and learners should be able to understand how each affects the learning process in the educational delivery system in order to provide the most positive teaching and learning experience (Dewey, 2009).

### **The Role of Reflective Leadership in Transformative Learning**

Transformational leadership is a word in education that has risen above normal practice to influence today’s learning. In today’s adult education environment, it seems to be a part of our daily consciousness as it has the potential to ease our sense of having lost our way, our sense of unaccomplished tasks or failed fulfillment. “Leadership is the process of persuasion or example by which an individual or a group of individuals induces a group to pursue objectives held by the leader or share by the leader and his or her followers” (Jossey-Bass, 2007, p. 17).

In order to master leadership abilities, one must be animated by the capacity to critically and autonomously reflect on the realities he or she faces daily in his/her practice (Fullan, 2011). Transformative leadership and learning require that we possess the ability to modify our

practice through reflections in order to bring about changes that will affect our own lives and that of others. Mezirow (1991) defined reflection as

*“The process of becoming critically aware of how and why our assumption have come to constrain the way we perceive, understand and feel about our world; changing these structures of habitual expectations to make possible a more inclusive, discriminating, and integrative perspective; and finally making choices or otherwise acting on these new understanding” (p. 167).*

In addition, according Dewey, as quoted by (Harbour, 2015), reflective thoughts are active, persistent, and careful consideration of any belief or supposed form of knowledge in the light of the grounds that support it and the further conclusion to which it tends. Such ability is inherent in our professional development which allows us to think and critically analyze the realities that we confront regularly. This critical thinking ability provides us with the capacity to create a past, understand the present, and influence the future. We learn such ability by interacting with others in our environment. In other words, it must be nurtured. One thing that scientists know now is that it is not enough to care for our physiological needs; we must certainly be concerned with our social development, especially at an early age (Schaefer, 2012). As humans, we learn to think autonomously after developing our critical thinking ability by using critical reflection processes. According to Mezirow (1997), it is through transformative learning that we develop such autonomous thinking ability. Hence, they are not mutually exclusive, because “Adults’ statements involve a continuing sequence of judgement regarding what is important, just, relevant, worthwhile, truthful, and authentic (Mezirow, 1991, p. 15).

In order to develop critical thinking abilities one must be able to reflect on his/her experience, past and present. This is why Mezirow (1990) insinuated that reflection enables us to

correct distortions in our beliefs and errors in problem-solving. Critical reflection involves a critique of the presuppositions on which our beliefs have been built. Learning may be defined as the process of making a new or revised interpretation of the meaning of an experience, which guides subsequent understanding, appreciation and action. Boud & Walker (1998) viewed critical thinking as a generic term for those intellectual and affective activities in which individuals engage to explore their experiences in order to lead to new understandings and appreciation.

In order to become transformative leaders, it is imperative that individuals focus on the greater good of a group or society at large. Mezirow (1991) believed and I support his view that “This collective awareness of the influence of our own history and biography on the way we make and validate meaning also celebrates the emergence in our culture of an age of reflection” (p. 99). “A reflective servant-leader focuses primarily on the growth and well-being of people and the communities to which they belong” (Greenleaf Center for Servant Leadership, n.d.) I agree with Klenke (2007) in his assumption that a transformative leader is someone who is true to his/her values because he/she has a profound sense of determination. He/she is also someone who makes a difference in the lives of everyday individuals and social institutions. In Klenke’s view, a model of authentic leadership integrates contextual, cognitive, affective, conative, and spiritual elements in its reflective practices.

Furthermore, according to Mezirow (1991), reflection is testing the validity of the “what” and the “why” of what has been done and beyond. In other words, it is a way of making sense of a reality and exploring our personal belief system in order to separate facts from fallacies. Educators should make reflection a daily occurrence in their practice. This is very important because the expectations for educators and other teaching and learning organizations have



significantly increased in the past decades. The responsibilities for both have stretched to include, particularly for administrators, instructional leadership and student achievement. Obviously, demands now are for a new kind of leader focused on instructional leadership, school improvement, and, of course, student accomplishment. Being able to reflect on all aspects of what and why we do what we do as teachers, professors, administrators, etc., is a skill that is becoming more and more essential, if not imperative, in adult learning. Mezirow (1991) pointed out the importance of reflection in learning by stating, “Reflection is the central dynamic in intentional learning, problem solving, and validity testing through rational discourse” (p. 99).

As it relates to transformative educational leadership, ethics requires that we engage in true inquiry based teaching and learning. “Inquiry is defined as a search for the truth, information, or knowledge—seeking information by questioning” (Educational Broadcasting Corporation, 2004). Slavin (2003) also talked about the importance of evidence based theories and practices. It is obvious, according to him, that if we ought to create adult educational programs that work, we need a way to verify whether or not they work. Educational theories cannot stand alone. This is probably why Davis (2007) advised us not to automatically trust everything we read or hear; we must take it upon ourselves to analyze the validity of the information. Theories must be connected to research to safeguard their validity and reliability, suggested Slavin (2003). If the connection cannot be made using constructive reflection, theories would be both empty and abstract.

Reflection allows us to verify whether or not what did worked. It also helps to check if what we whether or not what we are doing is working. In the context the current pressure to tie learning to data, being able to analyze and reflect upon every aspect of the learning process, including planning and implementation, it is important for educators to take a step back and

reflect on the implications of their actions. This is a crucial aspect of learning because it can mean the difference between having programs that work and those that don't.

As educators become more aware of the dynamics of reflective learning, it is essential to incorporate Mezirow's (1991) advice about all critical reflections. He stated that "All critical reflection is appraisive rather than prescriptive or designative" (p. 88). Using emancipatory learning in order to affect future decision making is a must. Mezirow (1991) saw emancipatory learning as a process by which the learners discard an old learning paradigm in favor of one builds upon new understandings. Educators should become more open to new paradigms. For instance, one should try to question one's own power of reflection to open one's mind to broader *schemes* by using trans-situational learning. Consequently, it is imperative for adult learners and transformative leaders to be able to use their critical thinking to influence their learning and that of others. Reflection on what has been done, what needs to be done, and what will be done, will secure the proper use of our frame of references, which, according to (Atkins, 2012) is the *marche à suivre* for any professional and adult transformative learning and reflective experiences..

The process of becoming critically aware of how and why our assumption have come to constrain the way we perceive, understand and feel about our world; changing these structures of habitual expectations to make possible a more inclusive, discriminating, and integrative perspective; and finally making choices or otherwise acting on these new understanding. To be effective, we should not only pay attention to the cognitive processes (how we reflect), but also the content of our thinking (what we reflect upon), the goals of our thinking (why we reflect), and how our thinking influences relationships, learning, and teaching practice.

## **Conclusion**

In summation, an important aspect of teaching and learning comprises the practice of mitigating or authenticating previously learned knowledge or thoughts to shape our current and future actions. Meaning is constructed and must be learned. The meanings we ascribe to our realities are shaped by both communicative and instrumental experiences. Those experiences help us develop ourselves and make us who we are as reflective individuals. Reflection which is an imperative element of transformative learning takes place when the individual becomes critically aware of how and why his/her assumptions have come to limit the way he/she observes, recognizes and senses the world. Reflection provides us with the ability to change our constructions of customary anticipations to make possible a more comprehensive, judicious, and integrative viewpoint in order to make choices or take actions based on new understandings.

No one holds the ultimate key to transformative education and learning. Learning is a matter of correct appreciation of real situation and serious reflection upon them, as both educators and learners are advised to consistently do. As such, we can create common understandings in order to share our realities. In the same spirit, it is important to understand that changes are needed in the way adult education is delivered. To address the issue, transformative learning seems to be the appropriate way forward, because it has the potential to affect the way both learners and educators see learning as they are both actively participating in the learning process.

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