

## Diversity in Learning

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### OVERVIEW

As a learning organization, companies want to have a learning environment for their employees. In these companies, learning transpires not only within educational opportunities (e.g., online, classroom, on-the-job) but within the totality of the business experience. Within the business environment, among a host of other diversities, one finds three types of learning diversity: how employees learn, what environmental relations they have experienced, and where theoretical learning foundation begins. This chapter furnishes a look at the types of diversity present within a business by taking these three types of employee diversity and subdividing them into components. For example, how employees learn includes their learning strategies, multiple intelligences, and employee abilities. The environmental relations employees have experienced that affect how they learn are found within their culture. Theoretical foundations expounded upon include behavioral theory, cognitive constructivist theory, and social learning theory. This chapter recognizes all components of diversity and how they are important in reaching the goals of promoting greater participation in performance.

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Providing an environment that is conducive toward reaching a higher level of a learning organization is vital for business' sustainability.

## LEARNING ORGANIZATIONS

To meet the demands of the technological and globalization changes, organizations seek to be learning organizations that provide the means to adapt to the demanding requirements of skills, knowledge, and abilities necessary to meet the organizational goals. The term learning organizations was first introduced by Peter Senge. His work, *The Fifth Discipline*, has become a stalwart in business libraries (Senge 1990). The term learning organization is at the forefront of businesses. Within Senge's reference work, he provided five disciplines for creating innovative organizations that foster collaboration (Senge 1990). These five disciplines are vital in meeting the demands of businesses in accomplishing organizational goals.

### *Learning Disciplines*

To cultivate a learning organization, Senge (1990) said there are five disciplines necessary for change: personal mastery, mental models, shared vision building, team learning. The fifth discipline is melded into being by the other four systems. All five of Senge's core learning disciplines set learning in the intersection of culture, dialogue, and context (Mickahail and Andrews 2015).

### *Situational Context*

To establish a learning organization, one facet businesses launch or advance are learning situations for their employees to set the environment that is conducive to systems thinking. This organizational environment, as per Senge (1990), entails the five disciplines. Learning takes place when a person becomes a member of a community of practice through legitimate peripheral participation (Kolb and Kolb 2005). The goals of learning situations within organizations is to transfer the knowledge obtained through learning into skills and abilities that are utilized in the workplace in accomplishing organizational goals. A process of becoming a member of a community of practice creates a situation where learning can take place. Thus, learning situations transpire

not just within those formal developmental situations planned through online, classroom, or on-the-job training modalities but within the entire spectrum of living within an organization. This provides the context that learning opportunities are all around employees or within the totality of experiences occurring in the workplace. A central concept in Dewey's (1938) educational philosophy is the continuous range of involvement in which experiences that build or hinder learning are arrayed. The range of involvement is seen within the diversity of the learning *situational context* that entails three areas wherein employees learn: **how** employees learn, **what** environmental relations they have experienced, and **where** the theoretical learning foundation of the organization lies.

## HOW EMPLOYEES LEARN

Employees learn in a variety of ways because no one employee learns in the same way as another. In the next section, discussions are provided covering learning strategies, multiple intelligences, and learning theories.

### *Learning Strategies*

Since the times of Chinese philosophers in the sixth century B.C. and on into Greek philosophers such as Socrates with his Socratic learning philosophy and on to Plato and Aristotle in the post-Socratic times, humans have sought to understand how one person influences another through teaching and learning. Too often still, “educators continue to treat all learners alike while paying lip service to the principle of diversity. [Organizations] must address the imbalance between uniformity and diversity” (Guild 2001). Learning strategies, or also called learning styles, are simply preferences for how an individual wants to learn. An important note is that learning styles are not absolute categories but permeate through and around each other and can change as environmental influences change a person. This is one problem when discussing diversity/cultural differences in that there are not absolute categories from which a person emanates but a variety of changing diversity/cultural influences. There is not one clear category of a specific culture or a specific learning style wherein a person can be placed having no part of another category or culture or learning style. However, learners will show a preference for a particular region of the learning space. A learning space is the totality of influences upon which learning

transpires for a learner. Modern theories of what creates a learning space have been developed for nearly two centuries. There are several different learning spaces models explaining learning strategies that have been put forth by leading learning theorists. A model is a combination of variables or factors that a theorist has put together to demonstrate the principles of a theory. Three models will be discussed in this section: Myers–Briggs Type Indicator, Kolb’s Learning Styles Model, and Felder–Silverman Model.

**Myers–Briggs Typology** is based on Carl Jung’s theory of personality. Carl Jung purported that there is not pure random behavior but that people have preferences in the way they use their mental capacities. He saw two primary methods that people engage in mental functions for which a person prefers one. The two mental functions are the way a person takes in information, which is perceiving, or the way someone organizes information and comes to conclusions, which he called judging. He found that people prefer performing in one of these two ways so he said they prefer perceiving or judging.

The formalized Myers and Briggs theory was developed in 1943. Building on Jung’s preference for ways people use mental functions, Myers and Briggs built a model that provides four types of preferences for learners: (a) a preference for where someone finds energy—introvert or extrovert, (b) a preference for how someone takes in information—sensing (through senses) or intuitive (hunches), (c) a preference for how to make decisions—thinking or feeling, and (d) a preference for how to organize information—judging or perceiving.

Employees with a preference for finding energy outside themselves prefer working in groups rather than alone more than employees with a preference for finding energy from within themselves. In developing learning situations, it is important to note that both types of preferences prefer to have explaining take place, but employees with a preference as an introvert need time alone in quiet. Working through a nominal group technique would be a preference for an extrovert employee who likes to take in information from a group. Creating a cost/benefit analysis would be something that an employee who prefers introversion would prefer.

Employees with a preference for how to take in information through sensing want facts and trust them. Employees with a preference for intuitiveness find patterns and relationships essential and trust their intuition. In developing learning situations for these employees, employees with a preference for sensing want logical information. For example, a case

study should be familiar to those employees and be answerable almost from previous material, while those with an intuitive preference appreciate an integrative framework and discovery learning.

Employees also have a preference for how to make decisions that is either based upon logic or feelings. Those who prefer logic are said to base their decisions on thinking, while the others base their decisions on feelings. In developing learning situations for those employees who prefer thinking, want clear objectives and concrete meanings to words. Those who prefer feelings prefer to be in learning situations in groups that are harmonious.

Judging or perceiving relates to how people deal with the world. They seek out learning situations that are different from each other. A judging preference is seen in those who are quick and decisive in their lives and have a planned approach. A perceiving preference is seen in those who have a spontaneous approach and are adaptable and seek more information before making a decision.

Each employee has a preference in each category to make a mix of 16 types. Organizations, according to this model, should understand, accept, and respect each employee's preference in developing learning environments wherein they expect employees to learn.

**Kolb's Learning Styles Model** provides a mechanism to divide learners into four preferences: (a) Divergers: combining preferences for experiencing and reflecting, (b) Assimilators: combining preferences for reflecting and thinking, (c) Convergents: combining preferences for thinking and doing, and (d) Accomodators: combining preferences for doing and experiencing. Kolb and Kolb (2005) thought that learners have a preference of one of these types for how to be taught.

There are four dimensions of preferences in the **Felder-Silverman Model**: (a) active or reflective learners, (b) sensing or intuitive learners, (c) visual or verbal learners, and (d) sequential or global learners. Regarding the last dimension, a sequential employee prefers learning by following ordered, logical steps, while a preference for global learning would be indicated by an employee who looks at the big picture to draw conclusions (Felder & Silverman 2010). Felder and Silverman's augmentation of theories of learning styles combined visual to be visual/auditory in that visual does not in and of itself include visual prose. Visual prose cannot be said to be just visual because employees think in the spoken word when reading (Felder 1988).

These three models are provided here as representative of learning styles theories. There are others that provide specific categories or preferences in ways employees learn as well as overall theories of learning that will be discussed under the heading of Learning Theories later in the chapter.

### *Multiple Intelligences*

The standard concept of intelligence held there was one general measurable factor of intelligence. With the idea of a concept of general intelligence, education considered intelligence to be managed as a unique, measurable, predictor of academic success (Andronici and Andronic 2016). In contrast to this theory, Gardner (1983) put forth the theory of multiple intelligences. He listed eight autonomous intelligences affecting the way we learn: *verbal/linguistic intelligence* (for words), *mathematical/logic intelligence* (for numbers and reasoning), *visual/spatial intelligence* (for images, drawing, and painting), *musical rhythmic intelligence* (for tone, rhythm, and timbre), *body/kinesthetic intelligence* (for the body), *interpersonal intelligence* (for social interaction and relationships), *intrapersonal intelligence* (for self-awareness), and *naturalistic intelligence* (for regularities and patterns of behavior). Gardner put forth the idea with these intelligences that education should be managed with knowledge that the application of multiple intelligences can make more appealing the behaviors of teaching and learning for both teachers and learners. The theory can be extended to state that every employee should be provided opportunities to use their preferred type of intelligence when learning while being encouraged to do so. The foundation of education with multiple intelligences is that learners remember the material better if they learn in their own style.

### *Employee Abilities*

An employee's abilities affect the way he or she learns where some employees are capable of learning at all levels of the range of information and application. However, the number of employees capable of this is limited. Employees are born with a set level of ability upon which they build during their lifetime. Those employees who come into a company with an ability to set aside past experiences when learning how to interact in the company's culture will advance in aspects of becoming an

accepted member of the culture and in understanding and fulfilling more readily tasks associated with his or her job than someone who does not have that ability. Another ability employees come with into the organization is the experience associated with their jobs. Upon this experience, employees have the opportunity to scaffold learning. How high the scaffold reaches is partially due to how high the employee was on the wall of abilities when coming into the company, department, or work group. An employee's abilities are also affected by his or her values, beliefs, or attitudes as a focus of diversity.

### WHAT ENVIRONMENTAL RELATIONS ARE EXPERIENCED?

The environmental relations experienced by employees are discussed in terms of zones in which employees operate in their cognitive functioning. These affect learning in that they contribute to an employee's acceptability of others, situations, and ideas.

#### *Diversity Zones*

In evaluating environmental relations experienced by employees, organizations often do not adequately dialogue on the foundation of diversity in learning. Often the bases for diversity in organizations are limited to four *diversity zones* among the multitude of zones in existence. The four zones of diversity that learning designers most often employ in developing learning situations are gender, race, age, and sexual orientation. These are important considerations in developing learning situations; however, there are many more zones of diversity that must be included to develop learning situations that are inclusive of all of diversity. Some of the other diversity zones are religion, familial interactions, social relationships, and geographical location.

#### *Intersection of Diversity and Culture*

The totality of learning diversity zones entails the four culture zones: the culture of the nations wherein the organization works, the culture of the organization, the culture of the department wherein employees work, and the culture from which the employees come. So, those cultural zones become the basis from which learning situations should be derived. This type of consideration involves the relationship between

diversity and culture. Often the concepts of culture and diversity are separate in discussions and thought so there is no intersection in the concepts. As organizations move into becoming learning organizations, they may see the two concepts as having some intersection. However, they are instead interwoven so that the intersection is within all points of each concept (see Fig. 7.1). Because of this intersection, any discussion of one should entail a discussion of the other.

Culture is a group of people with common experiences that shape values, attitudes, and beliefs. The common experiences, or cultural zones that emanate for the four above, include race, age, gender, religion, or national origin. However, beyond these commonly considered experiences, there are also education, family, health, work groups, and social groups among a myriad of others. A person can acquire a new culture or

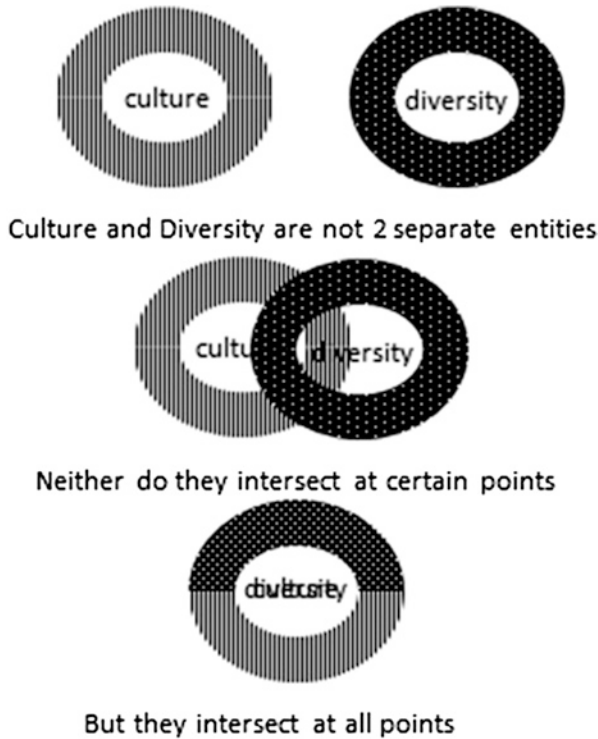


Fig. 7.1 The intersection of culture and diversity



enter a new diversity zone based upon what happens to the person. For example, a move to a new geographic area, a different job, or even a different department at work, or becoming disabled can move a person into a different diversity zone. Employees belong to many cultures all at once. An employee who grew up in India would have a different world view than someone who grew up in New York City. However, not everything is different. People all over the world, have family, go to sleep, eat, learn, have pain and fear, and love thus having a basis for similarities. At the same time, our differences, based upon diversity zones, are important to notice, understand, and use in learning, working, and living.

### *Culture Zones*

Cultural zones are those areas from where ideas are drawn and plans are made. These ideas and plans are formed according to values, beliefs, and attitudes put forth from the specific cultural influences present within the cultural zones to which an employee belongs. The cultural zones comprise the environmental influences always present. Employees learn through the environment that encompasses them. Not only does the learning change because the environment is always changing affecting our cultural zones, but how we learn through personal learning styles is dynamic and changing (Kolb and Kolb 2005). The interactions between employees and their environment occur within a concept of learning space that was founded on Kurt Lewin's field theory. Learning spaces are made up of the influences of cultural zones to which a person belongs. Lewin saw as independent variables that a person and his or her environment intermingle so that behavior becomes an interaction of the person and environment (Kolb and Kolb 2005). In this bidirectional functioning between the person and environment lies the learning space where learning style dictates what is absorbed, applied, and implemented from learning materials. Marrow (1977) found the person experiencing learning subjectively with the learning space being the person's total psychological environment. The total psychological environment is made up of cultural zones brimming full of those cultural attributes influencing values, beliefs, and attitudes such as family interactions, school experiences, geographical input, and language manipulation.

Building upon Lewin's field theory and combined with Vygotsky's learning theory, Bronfenbrenner's environmental portrayal of culture influences provides a view of why and how employees acquire learning

through their learning space of cultural influences. Bronfenbrenner brought forth the ecological systems theory of human development as having five dimensions. These five subsystem dimensions that surround the individual are the (a) macrosystem dimension, (b) mesosystem dimension, (c) exosystem dimension, (d) microsystem dimension, and (e) chronosystem dimension. The person is at the center of the dimensions with all the characteristics of his or her being (e.g., abilities, age, gender, health). The subsystems' variables are the cultural groups affecting the person's individual identity. The interactions and links between the individual and subsystems determine who the individual is and thus influences if not controls what the individual thinks, beliefs, and acts. For a description of these five dimensions, see Table 7.1. Bronfenbrenner later added the influence of genes on development so the theory is now called bioecological theory.

In applying Bronfenbrenner's concepts to culture and learning, a particular view of what makes up the culture of an individual and how that transpires into learning emerges. Applying Bronfenbrenner's ecological theory to learning should take into context the cultural zones of the employee, other employees, and the teacher and how these cultural zones are ever changing.

## WHERE THEORETICAL LEARNING FOUNDATIONS EXIST

Employees bring with them into learning situations the inherent values, beliefs, and attitudes formed from being members of their cultural zones. There are many theories of how learning takes place within an educational zone. Each theory builds on past theories. However, there are three broad categories in which the theories lie. A discourse on each of the three broad categories, behaviorism, cognitive constructivism, and social learning, is provided below.

### *Behaviorism*

Credit is given to Pavlov and Skinner for the behaviorist theory. This was the first modern day theory of experimental learning put forth. Pavlov stated that learning transpires with the combination of a stimulus and response that is automatic. A stimulus affects a certain response wherein learning occurs as the stimulus is subsumed by another stimulus so that the same response occurs. Skinner enlarged the theory to

**Table 7.1** Five dimensions of Bronfenbrenner's ecological systems theory

<i>Microsystem</i>	<i>Mesosystem</i>	<i>Exosystem</i>	<i>Macrosystem</i> <sup>a</sup>	<i>Chronosystem</i>
Direct influences that include family, school, religious institutions, neighborhood	Microsystem are interactions with interactions-relationships: families and teachers, peers, and family, etc.	Social settings where no active roles are linked to the mesosystem. For example, work experiences may affect home life, such as taking a new job. News media is an example of what is included in the exosystem	Larger cultural zones as attitudes and theological attributes. Evolves over time as successive generations change the current microsystem. Governmental laws and national customs are examples of what is included in the Macrosystem	Transitions over time in the person's life. Sociohistorical circumstances. For example, the evolution of women's rights around the world

<sup>a</sup>Cultural zones include all possibilities of interaction with one's environment such as socioeconomic status, ethnicity, type of country: developing or industrialized, national culture

explain the description, explanation, and control of behavior (Catania and Laties, 1999, as cited in Visser 2010). Skinner denied a mentalist explanation for learning behavior. All measurements of learning, according to Skinner, can only be about observable behaviors. Learning thus is a direct result of consequences of behavioral reinforcement. Skinner (1974) posited that behaviors are the by-products of conditions resident in a person's social and physical environment. The social and physical environment is akin to existing cultural zones. A learner's learning is simply a predefined absorption of a body of knowledge. Behaviorist theory is a teacher-centered theory where the teacher transmits behavioral responses that employees absorb. With Skinner's theory, employees are motivated only by positive and negative reinforcements. Learning is limited to behavioral responses that are absorbed by the learners after being transmitted by the teacher or supervisor or other employees.

### *Cognitive Constructivist*

In the cognitive constructivist theory of learning, learners take written words and translate them into spoken words. The basis for this translation are the preexisting cognitive structures actively constructed by the learners. Vygotsky (1978) maintained "that language is the main tool that promotes thinking, develops reasoning, and supports cultural activities like reading and writing." Employees are self-motivated in learning and are intrinsically motivated to learn through setting their own goals. Additionally, learning is facilitated by a teacher or supervisor or other employees who provide the learning environment that is geared toward discovery and assimilation/accommodation (Berkeley 2016).

### *Social Learning Theory*

In social learning theory, the theory of cultural zones is utilized where social learning theory incorporates learning taking place because of environmental zones through interactions with a group based in a culture of knowledge. Learners, through their integration with others, achieve learning through collaborative assimilation and acceptance of new information (Berkeley 2016). Employees are both intrinsically and extrinsically motivated to learn to accomplish their goals that are determined by rewards provided by the culture or knowledge group. Social constructivist theory of learning is student-centered where the acquiring of new

knowledge, skills, and abilities is simply facilitated by the one providing the learning environment.

### SUMMARY

In a pluralistic society, a multicultural educational system holding as sacrament the diversity of the members demonstrates respect for all cultures. A comprehension and respect of one's own cultural heritage as well as having a comprehension and respect for other cultures can be developed through exploring similarities and differences of cultures. This exploration fosters the capability to function harmoniously and effectively in a diverse, multicultural society. A multicultural educational system nurtures within the individuals' self-regard staying within one's culture yet maintaining respect for other cultures. An educational model devoted to the experience of diversity will maintain adherence in design and implementation into learning zones the uniqueness of each member based upon the varied factors of diversity/cultural zones.

### DISCUSSION QUESTIONS

- In your workplace, what implementation of these principles of diversity based on culture do you see is possible in permeating the culture in your organization so that more diversity in learning is acknowledged?
- What other models or theories of learning styles exist?
- Describe your culture in terms of the five levels of Bronfenbrenner in terms of values, beliefs, and attitudes.
- Where do you see conflicts between your cultural values, beliefs, and attitudes and others in your circle of interactions?
- What other diversity zones do you see as affecting learning situations?

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