

Learning Styles as a Filter for Developing Service-Learning Interventions

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Learning Through Experience

The term experiential learning conjures up images of outside-the-academy undertakings such as internships, cooperative education, and fieldwork opportunities. Inside-the-academy undertakings considered to be experiential learning include laboratory work, gaming, simulation, and role-playing. The acceptance of these learning strategies owes much to the work of John Dewey (1938). At the time, his support for learning grounded in experience challenged traditional, rationalist, scientific, and technological approaches to education. Similar to Dewey, Kurt Lewin (1951) expressed support for the individual learner as an active agent in the learning process through his or her interaction with the surrounding environment. A third theoretician to whom supporters of experiential learning are indebted is Jean Piaget (1952). Coming from within a rationalist school of thought, Piaget conceptualized learning as a process where intelligence is shaped by experience over time. His work met many of the traditional challenges opposed to experiential learning and provided a developmental framework through which we can better understand intellectual growth.

The Experiential Learning Model

The works of Dewey, Lewin, and Piaget provide the foundation for the more recent contribution of David A. Kolb (1984). Looking for ways to foster an individual's ability to best "adapt to and master the changing demands of his job or career, i.e., "by his ability to learn" (Kolb, Rubin, and McIntyre, 1974, p. 27), Kolb set out to develop the Experiential Learning Model. Experience is the cornerstone of this model, and like Piaget, learning is viewed as a process. Kolb's model outlines the learning experience as a constantly revisited four-step cycle. This model is value-free in that none of the result-

ing styles formed from the interaction of the four steps is considered inherently better than another.

When viewed in its theoretical sequence, the model's four steps, or the abilities attained by the learner, begin with concrete experience, followed by reflective observation, abstract conceptualization, and active experimentation. Initiated by an individual's concrete experience, the process moves through a period of reflection on that experience. That reflection stimulates the learner to organize observations about the experience and create concepts around that organization to better understand his or her world. Through that new understanding, individuals find the confidence to experiment actively and thereby enhance their learning. That experimentation leads the individual to revisit the four steps of the cycle beginning with new sets of concrete experiences.

Styles of Learning

Kolb's four steps or sets of learning abilities (concrete experience, reflective observation, abstract conceptualization and active experimentation) interact to form four learning styles. These four learning styles are arranged graphically in a quadrant to form a "learning wheel," for easier understanding. Initially, all learning begins with a concrete experience; therefore it is best to begin exploring those styles where a preliminary concrete experience interacts with the subsequent reflective observation on that experience.

Diverger. In the first quadrant lies the diverger style. The learning strengths of divergers lie in their imaginative abilities; they exhibit ease in brainstorming and generating ideas and alternatives.⁴ As a result, they are able to view issues and problems from a variety of perspectives. With a strong interest in people, divergers are sensitive to individuals' feelings. They greatly value oth-

ers and have a keen ability to appreciate the needs and concerns of others. Divergers can often be found in the arts or service fields. Their potential for empathy makes divergers excellent candidates for counseling and advising positions.

Assimilator. Next on the learning wheel lies the assimilator learning style. In this quadrant, reflective observation and abstract conceptualization interplay. Prone to inductive reasoning, assimilators are more interested in the logic of ideas and theory rather than practical applications to specific problems. This style is associated with intellectual competencies. Assimilators' interests are more attuned to ideas than to people, and assimilators are drawn to information and science positions. Within the student-affairs profession, assimilators serve well as researchers and theoreticians.

Converger. Like assimilators, convergers have the ability to conceptualize in abstract ways but at the same time combine that with an ease in active experimentation. Convergers apply their ideas in a practical manner, are highly organized, and tend toward deductive reasoning. Their strengths lie in the ability to evaluate, make decisions, and apply ideas. Being good at making decisions, convergers are often found in technological or specialist occupations. Within student affairs, convergers serve as excellent directors of service and program operations.

Accommodator. Sharing strengths in learning from concrete experience and through active experimentation, accommodators are risk takers. They best learn from "hands-on" experience and gravitate to situations where they must adapt to changing and immediate circumstances. Accommodators focus on people and action. Though they are found to excel in the marketing and sales fields, accommodators also serve well in crisis intervention and front-line service positions.

Important Components of the Model

Structure. Kolb's four steps or learning abilities are arranged conceptually to form horizontal and vertical axes. At the top of the vertical axis lies concrete experience, with abstract conceptualization at its base pole. This vertical axis reflects the Piagetian (1970) view of individual cognitive development as a journey from a concrete to a more abstract view of the world. Likewise, the horizontal axis reflects Piaget's idea that an individual moves from an active (left end) to a more reflective view of knowing (right end). By intersecting these two axes, four quadrants are created. Kolb's Experiential Learning Model identifies each quadrant as a learning style, with each style reflecting a propensity for the two learning abilities bordering each quadrant.

Sequence. The theoretical movement that Kolb describes is not linear but circular. His placement of styles around a circle or learning wheel is intentional. In theory, Kolb asserts that experiential learning is most effective when practiced in sequence. Initial concrete experience once reflected upon leads to the formulation of new concepts. These ideas stimulate active experimentation, which results from the individual's newly perceived choices. The resulting consequences of the choices made move the learner in a spiral motion to a new level of learning experiences. Not to complete the cycle implies theoretically the thwarting of the learning process, resulting in partial learning.

Style Preference. The elements of an experience stimulate an individual's choice of a learning style. We gravitate toward the style with which we are most familiar. As a result of learning abilities shared with adjacent styles, an individual can also pursue styles contiguous to his or her preferred style. As an example, accommodators share concrete-experience learning abilities with divergers and active-experimentation learning abilities with convergers; consequently, those two styles, though not dominant for the accommodator, have aspects that make them accessible to him or her. A person's least-preferred or least-accessible style is the one diametric to the most preferred style because the two share no common learning abilities. The least-preferred style (in the case of the accommodator, that of the assimilator) is still accessible but is the least functional of the four styles. It requires more effort on the part of the learner to pursue. Though individuals have a propensity for a certain style, we develop abilities and skills in all styles. Over time, our varied experiences give each of us exercise in all the styles of the learning wheel. The results of the Learning Styles Inventory (LSI), an instrument designed to measure a person's learning abilities (Kolb, 1985), provides a profile reflecting a dominant, two preferred, and a least-preferred learning style.

Spiral Progression. As mentioned, Kolb suggests, conceptually, an upward spiral movement of learning resulting from recycling through the learning wheel. Learning builds on past experiences and contributes over time to the development of a more mature learner. Learning involves not only experience, but reflection, experimentation, and abstraction. Though articulated as a process model, by repeatedly going through this cycle, individuals expand their abilities and build on their experiences. They move toward becoming integrated learners, which is the goal of Kolb's Experiential Learning Model.

Stages of Maturation. The spiral journey toward integrative learning is a process through three stages of maturation.

Acquisition. The first stage focuses on the acquisition of basic learning abilities and cognitive structures. What marks the termination of this stage is the recognition by the learner of his or her distinction as an individual from the surrounding environment. This usually occurs at the end of adolescence.

Specialization. The second stage focuses on the acquisition of skills and abilities that allow the individual to adapt to the demands of life tasks such as socialization and pursuit of a career. Adaptive competencies are mastered to meet these demands as well as the perceived expectations of society. The end of this stage is marked by the individual becoming aware of his or her own importance in the world, thereby choosing to fulfill personal needs that may conflict with the perceived expectations of society. Responding to society's demands may not necessarily contribute to personal fulfillment. Indeed, if a confrontation between society and self occurs, the individual can then move into the final maturation stage.

Integration. Up to this point, learning maturation can be viewed as the random accumulation of cognitive skills and abilities that contribute to the well-being of the learner. In the integration phase, the self is no longer seen as a chance collection of abilities and possessions: Life is now perceived as a process or journey with each new experience having purpose. To assist in that process, learning abilities that may have previously been held in check are now more readily accessible to the learner and contribute to the facilitation of that learner's journey.

Individualizing Service Learning Through an Understanding of Learning Styles

For those working directly with students, using a learning-styles filter to implement service learning on college campuses provides student-development specialists with information on how to structure specific interventions for different styles of learners. As an example, accommodators and divergers, due to a focus on people and activity are, in theory, more prone to engage in direct (as opposed to indirect or nondirect) types of service-learning opportunities. In contrast, assimilators and convergers would be more at ease with indirect and nondirect service-learning opportunities. Consequently, the Learning Styles Inventory can be an important tool for the service-learning coordinator when designing specific interventions for individual learners. By analyzing the results, a coordinator can personalize particular interventions to facilitate an individual student's development. For example, less-developed accommodative

learners may need more guidance through deliberate, reflective experiences. Such reflective experiences are essential components of all service learning. The realization phase of the Service Learning Model is a time for the individual to begin to recognize that the problems of the community in which he or she serves are not isolated ones and that social, political, and cultural webs connect one community issue with another. It is in this phase that campus service-learning interventionists spend extra effort in creating opportunities for reflective experience for students, such as journals, discussion groups, or term papers associated with an appropriate class. Due to their strengths in reflective learning, students with diverger or assimilator skills respond more readily to such tasks than do convergers or accommodators, for whom reflection proves more challenging. Attention to the details of learning styles by the faculty member or service-learning coordinator can prevent thwarted or partial learning. The circular learning process itself enhances the opportunities for the student to move into more mature, integrative learning.

This situation at the micro level highlights for the student-development specialist the importance of carefully planned interventions. It is at the micro level that knowledge of learning styles can assist in the application of the Service Learning Model. Ultimately, by working with the four different learning styles within the five service learning phases, the specialist will develop a three-dimensional grid outlining profiles, intervention strategies, and goals for each style in each phase. It is important for the service-learning coordinator to understand that what may prove a challenging intervention for one student may prove less of a challenge for another, given learning-style preferences. It is at these points that the coordinator needs to be acutely aware of the creative tension between challenge and support (Sanford, 1966) and to know when to provide what in the effort to promote the student's overall development.

Parallels of Learning Abilities and Service-Learning Phases

To promote the development of integrative learning, Kolb argues that partial learning must be avoided. Partial learning results from learners not moving systematically around the learning wheel with each experience; as a result, skills and abilities within each style of learning are not fully developed. The design of the Service-Learning Model supports Kolb's sequencing notion (see Figure 1). How the two models parallel each other is outlined below. Each service-learning phase is presented, and related learning wheel components are highlighted.

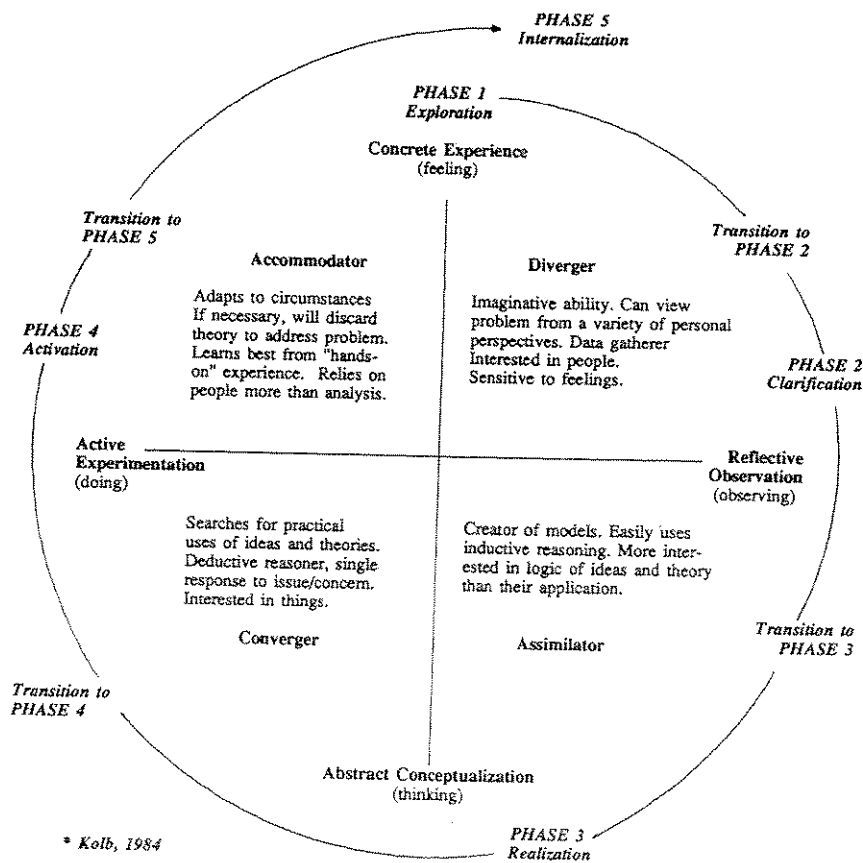
Exploration. This phase reflects a student's initial concrete experiences in the realm of service learning. Here the student engages in immediate experiences. Because community service is a new experience and in an unknown context, it is a very personal, self-centered one, generating previously untamed feelings and intuitions about an individual's environment. As an example, consider a new student who during freshman orientation opts to participate in a group service-learning activity comprised of a day-long painting project at a local Hispanic community center. This student is exposed to other new students and to a unique environment. Before that experience can be reflected on, it needs to be felt and sensed. Exploration is the service-learning phase in which these types of experiences occur.

Clarification. Experiences amass, and there comes a time to reflect on this accumulation of thoughts and intuitions. The clarification phase of the Service

Learning Model serves as that opportunity for reflection, that is, for generating and sorting out intuitive meanings of the experience. Students come to the clarification phase after having explored a variety of community-service opportunities. The exploration may occur through active service, through participating in activity fairs where representatives of various service organizations are available to explain opportunities for involvement, as well as through discussion with other students. As the student begins to participate in service in a more systematic manner, the student not only feels and senses these experiences, but also begins to intuit meaning. Through placing an increased value on other volunteers as well as on service clients, the student begins to appreciate different points of view, a major characteristic of the reflective-observation stage of learning.

Realization. Considered the "Aha!" phase, realization is the moment when the student becomes the active agent

Figure 1. Comparison of the Experiential Learning Cycle* with the Service Learning Model



in his or her service learning. Reflection no longer remains in the realm of intuition but involves the use of logic. The student spends time and energy on systematically collecting information and forming a conceptual framework. As an example, a student who volunteers once a week at a soup kitchen also has a paper to write for a nutrition class. Through the research conducted for the paper, the student becomes aware of some of the interrelationships between government policy, societal trends, and the existing condition of the hungry. Research and the ability to draw interconnections are the kinds of behaviors endemic to those at the learning stage of abstract conceptualization.

Activation. No longer comfortable in a service role confined by peer and academic structures and norms, a student in the activation phase takes a more self-directed service role. This active focus results from strategies generated through the student's thoughts on his or her feelings and intuitions regarding a particular set of experiences, together with ideas about and analyses of a particular problem, service site, or issue. To continue with our example from the realization phase, the student's move into activation is signaled by, for example, his or her efforts to establish a hunger-action program on campus. Through negotiations with the student government, the dean of students, and the academic vice president, the student succeeds in getting the campus to dedicate a semester to the theme of hunger. Food drives are conducted, speakers and symposia are presented, faculty are encouraged to weave the theme of hunger into their curricula (be it in economics, government, literature, or other disciplines), and the student government engages in external lobbying efforts for better food services within the local community. The example student thus exemplifies learning through active experimentation, by influencing people and changing situations through practical application of what he or she has learned and experienced.

Internalization. The final service-learning phase, internalization, finds the student at a different, more mature level of learning. He or she is open to new intuitions and feelings, ways of thinking, and taking action. The student's subsequent experience will benefit from the integration of past learning experiences, and as fresh experiences are undertaken, the student will pursue the various learning styles, but at a more mature level.

These parallels between learning-abilities and service-learning phases highlight how systemic movement through the phases of the Service Learning Model assists in the development of a more integrated learner. Though a student may have a preferred style of learning, by deliberately and carefully moving through each

phase, he or she is provided the opportunity to build skills and abilities characteristic of each style of learning.

Enhancing the Development of Values

Influenced by members of the school of radical educators, particularly Paolo Freire (1973, 1974), Kolb asserts that the Experiential Learning Model promotes the development of individual learners, but also that of a culture. With this assertion, the Service Learning and Experiential Learning models work together in their contribution toward the development of values. By engaging in deliberate and planned service-learning interventions, particularly those designed through a learning-styles filter, students are challenged to clarify and act on their values.

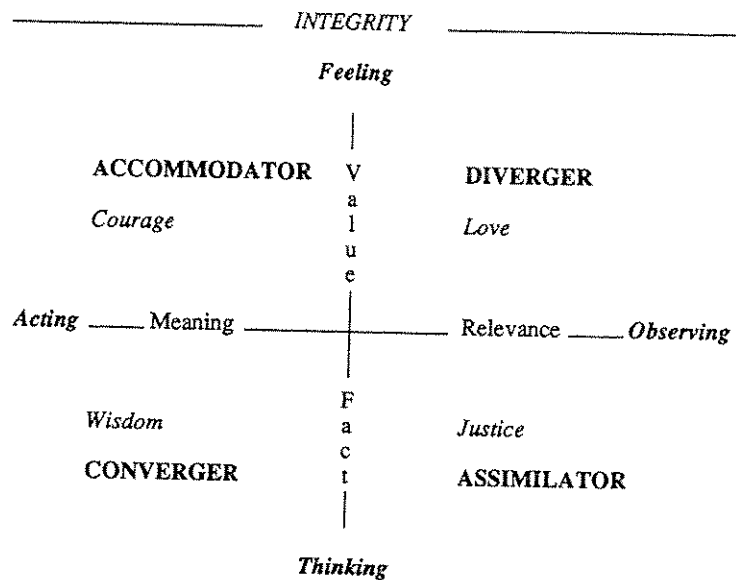
Recognizing the obvious tension between abilities (that is, between feeling and thinking and between observing and acting), Kolb reconsiders the learning wheel in the light of a reinterpretation of its structure (see Figure 2). Kolb describes the vertical axis as a dialectic between value and fact. Value predetermines the concrete experiences we ultimately choose. Fact serves as the foundation for our scientific judgment of these experiences. Kolb clarifies the horizontal pole as a dialectic between relevance and meaning. Where we initially organize our observations to create a meaning from our experiences, we also strive to apply that meaning purposefully through active experimentation.

The Four Virtues of Kolb's Learning Wheel. It is at this point that Kolb introduces the concept of virtue in the process of learning. He highlights four virtues: love, justice, wisdom, and courage. Each builds on another and relates to a particular learning style or set of learning abilities. All four are governed by the master virtue of integrity.

Love. The virtue of love helps usher divergers beyond their self-centered observations and a personal filter of reflection into a dimension of feeling; that is, to a respect for others. Love catalyzes the learner's ability to empathize with others' feelings and conditions. The resulting empathy challenges the learner to reflect on his or her own experience and create new meaning.

Justice. The next virtue, that of justice, assists us when we are using the assimilator learning style. Often when we approach an accumulation of facts, we make expedient assumptions. A sense of justice filters the learner's observations and thoughts about accumulated facts such that assumptions drawn by the learner are made relevant through fair and inclusive judgments.

Figure 2. The Values Within Kolb's Learning Wheel



Wisdom. Convergers are caught between the tensions of fact and meaning. The virtue of wisdom assists us when using the converger learning style. Wisdom holds random thinking or accumulation of facts in check by encouraging meaningful choices about one's behavior.

Courage. For those found challenged when using the accommodator style of learning, the virtue of courage comes into play. Courage provides an individual with the motivation to find meaning in his or her actions and to continue in the practical application of new knowledge. Courage helps the learner prevail over situations which challenge him or her to abandon planned and intended strategies.

Integrity. The overriding virtue, integrity, monitors the four virtues mentioned by calling us to respond to life's condition in an active and empathic manner. Where it may be easier to choose a less complicated road, integrity encourages us to opt for less-selfish paths, resulting in more creative and productive outcomes that contribute to an allocentric worldview.

A Call to Transform the Curriculum. Service-learning goals can move closer to reality if the virtues of each style of learning are bred within each learner. First students, through their experience in serving others, develop the ability to care. Students cannot develop empathic and more allocentric worldviews without this ability. Caring, when matched with respect, brings forth the virtue of love. Since care is felt and witnessed for all, love opens learners to an understanding of fairness. Next, behavior motivated by concerns about fairness and empathy has the potential to expand beyond charitable

actions and to approach just ones. However, for that behavior to be purposeful, it cannot be random. Therefore the virtue of wisdom provides students with the ability to create meaning out of their choices to act. Finally, courage provides students with the motivation to model and promote their values through steadfast behavior and responsible citizenry within their communities.

To love, to choose fairly and meaningfully—these are courageous acts. The curriculum requires transformation through the integration of the four virtues discussed into active learning components. Without these considerations, true learning can only be partially realized. Ultimately, we must engage our students in the clarification of values so that care becomes the motivation for individual, meaningful behavior, and for change to be deliberate and just.

Conclusion

In Chapter One, several developmentally based goals of the Service Learning Model were outlined. They include increased empathy, responsible citizenry, and action generated from a foundation of justice. The achievement of these goals cannot occur within the traditional academic curriculum. Experience is the key component for these goals to be actualized. It must become an integral part of our students' structural learning process. Through a multidimensional understanding and implementation of Kolb's Experiential Learning Model, service learning is enhanced and serves to promote the holistic development of the student.

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