Prior Learning Assessment

A Review of Bloom’s Taxonomy and Kolb’s Theory of Experiential Learning: Practical Uses for Prior Learning Assessment

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I have been teaching prior learning assessment for 12 years in an adult degree completion program. In the program’s first course, students learn the fundamentals of Kolb’s theory of experiential learning as a tool to help them ascertain what their experience has taught them. Colleagues have used Bloom’s Taxonomy in conjunction with Kolb’s theory as a useful tool for helping students move beyond superficial writing and add a depth of understanding and critical analysis to their essays.

Demonstrating depth of knowledge is a key component to writing learning experience essays. Adult students are asked to think about areas in their lives in which they have gained knowledge that relates to college-level learning. Reflection on the knowledge obtained includes evaluating the actions that occurred in a learning situation. Students are asked to consider what did or did not work, what they learned, and how they would approach the same situation differently to have a more successful outcome.

However, reflecting on and writing about experiential learning are not enough to receive credits based on the learning. Students must go beyond the reflection and examine how they applied the knowledge. From the practical application comes more reflection on the actions performed that lead to the results, or lack thereof. Students must integrate concepts from theoretical knowledge to balance the reflection and the practical application. Bloom’s Taxonomy and Kolb’s theory of experiential learning together provide useful information for helping students organize what they have learned and write the experiential learning essay.

Bloom’s Taxonomy

Bloom’s Taxonomy (Bloom, Engelhart, Furst, Hill, & Krathwohl, 1956) presents classifications of cognitive operations individuals use for learning to fully occur. Learning is classified within the cognitive domain into six hierarchical levels ordered from the least to the most complex: knowledge, comprehension, application, analysis, synthesis, and evaluation. The levels are assumed to be cumulative, with each one in the system building on the successful completion of previous levels.

Each of the six levels in the hierarchy represents an essential skill for students to become critical thinkers. At the knowledge level, the lowest in the hierarchy, the student recalls or recognizes information, ideas, and principles in the approximate form in which she or he learned. The material can vary from specific facts to complete theories, but all that is required is remembering the information. Learning objectives at this level include knowing terms, facts, methods, procedures, basic concepts, and principles. In prior learning assessment, students are asked to identify how they learned a task or skill from their life experience. For example, a student who is writing an essay on supervising employees can review the methods and procedures they use in their daily supervision routine.
The comprehension level is defined as the ability to grasp the meaning of material. Students may demonstrate comprehension by translating material from one form to another or by interpreting material. Ultimately, students using comprehension demonstrate a basic understanding of the material. Whereas a student at the knowledge level can recall information in a rote fashion, those at the comprehension level must be able to manipulate that information beyond simple memorization. Learning objectives include understanding facts and principles; interpreting material such as verbal material, charts, and graphs; paraphrasing information; and describing previously learned material. In an adult learning environment, the knowledge and comprehension steps alone are not enough for demonstrating mastery of learning and would not be acceptable for writing experiential learning essays.

The application level is defined as the ability to use learned material in new and practical situations and includes applying rules, methods, concepts, principles, and theories. Students at this level apply concepts and principles to new situations, apply theories to practical situations, and solve problems. The analysis level signals the ability to break down material into its component parts and may include identifying those parts, analyzing the relationship between the parts, and recognizing the organizational principles involved. Learning outcomes include recognizing unstated assumptions and logical fallacies in reasoning, distinguishing between facts and inferences, and evaluating data relevancy.

There are apparent similarities between the first four levels of Bloom’s Taxonomy and David Kolb’s theory concerning the expectation of adult student learning in the classroom. Like Kolb’s theory, Bloom emphasizes that the students’ work needs to reflect a higher level of critical thinking and analysis, especially when they are writing at the college level. The synthesis level refers to the ability to assemble parts to form a new whole. The adult student originates, integrates, and combines ideas into a product, plan, or proposal that is new to him or her. The objective of the synthesis level stresses creative behaviors, with an emphasis on formulating new patterns or structure. Learning objectives include: integrating learning from different areas into a plan for solving a problem, formulating a new schema for classifying objects or ideas, or proposing a plan.

The final evaluation level concerns the ability to judge the value of material for a given purpose. The judgments are based on defined criteria that are either developed by the student or given to her/him by an outside source. According to Bloom (1956), evaluation is considered the highest level in the cognitive hierarchy because it contains elements of all the other categories, as well as conscious value judgments based on clearly defined criteria. Learning objectives include: judging the logical consistency of written material, judging the adequacy with which conclusions are supported by data, and judging one’s own performance using internal or external criteria.

Kolb’s Theory of Experiential Learning

David Kolb has provided a systematic tool for faculty to assess students’ prior learning for potential college credit and for students to demonstrate the knowledge they have obtained from life experience. In his theory of experiential learning, which involves a cycle of four processes, Kolb (1984) stated that concrete experience, reflection and observation of the experience, abstract concepts drawn from the experience, and active experimentation must all be present in order for learning to occur. He was influenced by the theories of John Dewey, Kurt Lewin, and Jean Piaget. The premise of his theory is more learner-centered than teacher-centered.

Students in the degree completion program are expected to use the process Kolb espouses in his theory as an organizing tool for demonstrating experiential learning in their essays. The first process of the Kolb theory is Concrete Experience, which provides a frame of reference for discussing the knowledge obtained. However, the students need to go beyond just describing how they acquired experience. There must be an obvious relationship in the written essay between knowledge and experience. For instance, it is not acceptable for a student to simply write about his or her experience as a supervisor, followed by a term paper on theories of supervision. No obvious connection between the student’s experience as supervisor and those theories would be articulated.

The second process is Observation and Reflection. It is important for the student to explain how she or he acquired the knowledge. The faculty instructor looks for what a student read about a topic, how the student selected the reading, and how the student used the knowledge. Students are required to combine experience with the thoughts, reflections, and concepts learned from these experiences. They provide examples of experience to illustrate what they have learned and must make a connection between knowledge and experience by writing how the knowledge was applied to new situations.

The third process is called Abstract Conceptualization. Similar to one of the levels in Bloom’s taxonomy, it requires students to provide evidence of comprehension in their
writing. It is not sufficient to just present a fact or principle. The students have to articulate, with understanding, what the facts mean in relation to their experience. In the experiential learning essays, faculty are looking for evidence that the student has interacted with the knowledge and in doing so, gained an understanding of it. This interaction or evidence of mental processing may take the form of the ability to explain the subject, break it down, analyze it, rearrange it, or combine it with other knowledge on the subject. These intellectual skills and abilities reflect thinking processes and must be evident in students’ essays.

The fourth process of Kolb’s theory is Active Experimentation. Students are required to demonstrate the ability to generalize learning to new situations and environments. To generalize, one must derive or formulate a general concept or principle from a particular situation or experience. In their writing, students must move beyond the reflection process—for example, knowing the company’s policies and procedures for disciplining employees—and draw logical conclusions from the learning. The students’ writing must demonstrate their ability to generalize from the situation the elements that would apply or hold true in other settings. Faculty teaching the adult students can use the application of Kolb’s theory of learning to offer adult students a model for writing clear and concise papers based on critical thinking, reflection, theoretical understanding, and application.

Using Kolb’s theory of experiential learning and Bloom’s Taxonomy provides faculty instructors with an effective way to assess prior learning and determine if the student gained knowledge from her or his life experience. In the life experience essays, students are required to identify the learning outcomes from their experience and compare it with what is taught in college courses. By determining the learning outcomes from life experience, students can begin to critically analyze the meaning of what they have learned in a larger context. Using Kolb’s process together with Bloom’s Taxonomy adds a depth of understanding to the student’s writing as well as a breadth of demonstrated knowledge that creates a successful outcome for prior learning assessment.

References

