**Learning Objectives**

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**Learning Objectives**

 Research has shown that increasing the learning outcomes is achieved by active leaning. Some parts of the educational plan should be aligned to continue improving the learner’s performance. Those parts are learning exercises, evidenced based practices, learning objectives, and assessments (Hennessey& Freeman, 2024, p. 1). This paper includes a description of learning objectives and their purpose, an explanation of the difference between an objective and a goal, an explanation of the three learning domains based on Bloom’s taxonomy, a discussion of the relationship between learning objectives and each of the three domains of learning in dental hygiene, and an example of an objective for each of the learning domains.

**Learning Objective Description and purpose**

 Learning objectives (LOs) refer to what is expected from the students to know by the end of a lecture or a class session. LOs are also the desired results or outcomes that are measured after a specific learning session (Hennessey& Freeman, 2024, pp. 2-3). To be more specific, Barnard et al. (2021), explain LOs as statements that include the content that would be assessed using action verbs (p. 673). The purpose of LOs is to help students understand their educator’s expectations in a specific and clear way. Clear understanding of LOs improves the student outcomes and leads to better understanding and performance of a skill or behavior. In addition, clear LOs enables the students to have ideas about their learning projected directions. Also, LOs provides the student with reliable and effective directions to focus their studying on and decrease the need to ask their instructor about what the students need to know for a test. LOs enable the student to distinguish between the more and the less important information, and to connect different topics together (Hennessey& Freeman, 2024, pp. 2,3,12). Barnard et al. (2021), adds that LOs increase the student’s motivation and satisfaction by including higher level expectations. Those higher-level expectations ensure the student’s engagement and result in deeper learning (p. 674). Bastable et al. (2020), explain that LOs turn the focus and attention on the final desired results rather than what is being taught, and it is a way of communicating the teaching plan with the learners that helps them keep track of their progress (p. 456).

**The Difference Between Learning Objectives and Learning Goals**

 LOs and Learning goals are often confusing and sometimes used as the same meaning. However, the difference between LOs and goals is very clear. LOs are short-term goals that are expected to be achieved by the end of a short period of time like a lecture, discussion or session. LOs include specific, one-dimensional behavior. Step by step, LOs builds on towards the final goal. On the other hand, learning goals are broad, multi-dimensional, and long-term results that shape the final outcomes of a course or a long learning period like days, weeks, or months of learning. “Together, objectives and goals form a map that provides directions (objectives) as to how to arrive at a specific destination (goal)” (Bastable et al., 2020, pp. 454-455).

**Three Elements of a Well-Written Objective**

Well-written LOs include clear statements about the teacher’s expectations from the students and how those expectations would be measured. To develop useful LOs, the writing formats should include the following three elements: performance, condition, and criterion. Performance is the behavior, task, or skill that the student should be able to perform as evidence to show the teacher that LOs have been achieved. Two kinds of behaviors could be performed. First, Visible performance that happens when actually doing the behavior like writing or performing a motor skill. Second, non-visible performance that happens when recalling or identifying knowledge or information. Condition explains the situation or kind of setting where the behavior is expected to occur or be observed. Criteria describes the timeframe or the accuracy in which the behavior would be performed to show how competent the student is. In other words, the criteria is the information provided about how well the student would perform the desired task in order to be considered competent (Bastable et al., 2020, p. 457).

**Three Learning Domains Based on Bloom’s Taxonomy**

Three different domains are present for LOs based on Bloom’s taxonomy. Those domains are cognitive, affective, and psychomotor. However, each domain has its own levels that go from low to high. A student cannot get to the higher domain levels unless successfully learned the low-level behaviors. Cognitive domain involves the information that the learner acquired and required expressing the thinking process or intellectual and mental abilities. Cognitive domain includes six levels that are organized, by the complexity of behaviors, from easy to hard. The six level, in order, are Knowledge, comprehension, application, analysis, synthesis, and evaluation. Affective domain involves the learner’s emotional outcomes or feelings about a learned behavior. Affective domain helps the learners to recognize their own values by providing commitment to their emotions, attitudes, or appreciation of the teaching material. Affective domain objectives are divided into five categories, depending on the level of affective response, as follows: receiving, responding, valuing, organization, and characterization. Finally, psychomotor domain involves motor performance of a skill or behavior like writing or performing a motor procedure. Although, combining cognitive and affective skills is required to develop psychomotor skills, psychomotor skills are easy to create and measure, because it is mainly about observing movement. Psychomotor domain is divided into seven levels that go from less to more complex. The seven levels are perception, set, guided response, mechanism, complex overt, adaptation, and organization. In general, all three domains are related to one another and influence each other (Bastable et al., 2020, pp. 460-468).

**Relationship of Learning Objectives to Each Learning Domain in Dental Hygiene**

In the dental hygiene field, LOs are related to each learning domain. The dental hygiene field educators use all three domains to teach. Cognitive domain is the most common way of delivering information in a lecture setting to develop cognitive abilities and be able to retain information in the long-term memory. Those cognitive abilities are achieved through exposure to all kinds of experiences like computerized tools, group discussions, individual activities, and other visual, verbal, or written tools. In dental hygiene, patient education, clinical staff education, and students’ education may all be achieved through the cognitive domain. Affective domain is very important to be used in the dental hygiene field although it is often underestimated. Affective domain objectives are used through case study, role play, questioning and group discussion, and it is used to help students, clinical staff, and patients and their families to develop values and explore their interests. Finally, psychomotor domain is beneficial, in the dental hygiene field, when developing motor skills. Motor skills form the main desired outcomes for dental hygienists. Motor skills are developed through modeling and videos. In conclusion, all three domains are required and used by dental hygienists. As an example, a hygienist would be working on a patient (psychomotor) while talking about dental hygiene instructions (cognitive) with confidence (affective) (Bastable et al., 2020, pp. 464-469).

**Examples of Learning Objectives for Each Domain.**

***Cognitive Objective***

 After watching a five-minute video about tooth stains, first year dental hygiene students will be able to compare the difference between intrinsic and extrinsic stains using the provided chart.

***Affective Objective***

After one hour lecture, first year dental hygiene students will be able to express confidence while explaining to their classmates, who would be acting as their patient, what happens in an in-office whitening appointment, in two minutes.

***Psychomotor Objective***

In one minute, first year dental hygiene students will be able to choose the best shade that matches their student partner’s teeth using the provided shade guide.

In conclusion, LOs are very much more beneficial than I thought. Before learning about LOs, I did not believe in its importance, and I did not take the time to read the LOs of my previous courses. After learning about LOs, I understood its importance and benefits. I found myself interested in reading the LOs of each lesson before I start learning it. Now, I am much appreciative of the role that LOs play in the teaching process. LOs play an important role in clarifying the expected outcomes with the students and communicating the teaching plan as well. Also, LOs help the educator to design activities, like writing questions and developing exercises, that help the students achieve the required skill. Educators use LOs to evaluate their students’ progress using well-designed formative and summative assignments (Hennessey& Freeman, 2024, p. 3). In addition, LOs help the educator organize the material and create a learner centered teaching environment. LOs encourage educators to evaluate not only their students but evaluate their own teaching styles as well. As a result, educators would be able to make any changes to suit the learner’s unique needs (Bastable et al., 2020, p. 456).

**References**

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