ISSN NO: 2770-2367
November 2025

Description Of Learning Outcomes Through Identifiable Goals

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Abstract: This article discusses the issues of goal-setting of learning processes, the identification of learning outcomes based on externally expressed, observed and certain mental actions of students.
Keywords: learning goal, identification, behaviorism, observed learning actions.

Learning goals always imply shifts in the student's inner state, intellectual development, value orientations, etc. Learning outcomes, i.e. the achievement of goals, can be judged by external manifestations - by the student's externally expressed activity, its products (response, problem solving, etc.). In order to make goals fully diagnostic and learning reproducible, it is necessary to put forward a criterion for achieving each goal, in other words, the learning goal should be described in such a way that its achievement can be clearly judged.

The goal, which contains fully and reliably descriptive features, is called identifiable. Having set himself the task of identifying the learning outcome, the teacher thereby strives to describe its external features as fully as possible.

The approach of completely translating learning goals into externally expressed, observable actions has developed under the influence of the ideas and methods of behaviorism.

Behaviorism is a branch of psychology that studies objective observable phenomena in human behavior (primarily reactions to stimuluses), rather than subjective ones like feelings or consciousness. According to behaviorism, the stimulus - reaction relationship determines all our actions and actions.

This concept originated on the basis of the work of the Russian biologist Ivan Pavlov on conditioned reflexes. Inspired by his writings, psychologist John Watson wrote an article on the principles of behaviorism in 1913. The American proposed to take a fresh look at a person through observable phenomena: stimuluses, reflexes and instincts.

Since feelings, motives, consciousness, and reason cannot be experimentally investigated, behaviorists consider them unknowable. They also oppose considering any inner experience, calling it subjective. What matters is how a person reacts to the world around them, not what they think about it. In the wake of the rise of evidence-based science in the first half of the 20th century, behaviorism became very popular, especially in the United States.

Behaviorism represents the psyche through the analysis of only its externally expressed manifestations (motor, speech, etc., actions that collectively form "observed behavior") to teach us that:

1) the environment strongly affects us;
2) human behavior can be influenced;
3) it is necessary to deal not with the consequences, but with the cause of psychological problems.;
4) encouragement works, but punishment doesn't.

This approach reduces learning to the formation of students with a deliberately defined, deterministic "observable behavior", i.e. a clearly defined set of observable actions. But equating activity and action, and even more so the observed action, means greatly simplifying the phenomenon. Complex cognitive and emotional processes such as creative activity cannot be decomposed into individual observable actions and fall outside the scope of the behaviorist approach. Its applicability is practically limited to the field of reproductive education.

For example, the study of the academic discipline "Mathematics" for secondary vocational education has the following main objectives:

-to provide fundamental mathematical training in secondary vocational education and specialization;

ISSN NO: 2770-2367
November 2025

- the orientation of mathematical training towards the special training of the student, that is, the need in the learning process to focus on the deep and complete assimilation of mathematics sections by students, which are the basis for mastering a number of special disciplines;

-preparing students for their professional activities aimed at the ability of future specialists to apply mathematical knowledge in their professional activities.

These goals are generalized. Taking into account the educational, developmental and educational goals of learning, these goals acquire more specific characteristics. And taking into account the sections and specific topics of the subject, methods, means and forms of educational and cognitive activity of students, the goals are described through universal educational or specific subject actions of students.

The idea of complete identification of goals presupposes an accurate description of students' learning activities "not in the traditional vague manner", but in terms of the observed, measurable behavior of students.

This approach to learning goals means their complete translation into terms of observable behavior, or into the language of observable actions that can be unambiguously controlled. For example, the terms identify, repeat, and write down are much more accurate than the expressions "know" or "understand." In accordance with this, many methodological guides for teachers recommend avoiding the use of such "vague and indistinct" expressions as "learn", "discover", "perceive", "feel", "understand", etc. when defining and selecting educational goals and appropriate teaching structure. Instead, it is recommended to base training on the development of students' skills in such externally expressed, "observable" actions as, for example, "select", "name", "list", "describe", "define", "illustrate", etc.

The decomposition of learning goals, and with them the entire learning process, leads to a mechanistic construction of learning based on a set of isolated skills, i.e. the teacher builds the learning process as a simple sequence of working out each of its elements, a set of simplified learning cycles. Justifiably criticizing the complete reduction of learning goals to external signs, N.F. Talyzina noted the impossibility of judging on their basis the internal (mental) shifts taking place in the minds of students. For example, when solving mathematical problems, "observed actions" can be performed by students both through certain mental actions and through mechanical memory. So the description of the learning outcome through "observed actions" in most cases provides only examples, particular manifestations of a more general goal. Therefore, the identified goal is not an absolute, exhaustive description of the desired result, but its approximate, maximum achievable option with the available possibilities of description.

In the approach of a refined description of specific goals, we are talking about the transition from a general idea of the learning outcome to a more specific, but still not absolute one. The general requirement for such a transfer is to describe as clearly as possible what the student can do as a result of the training. A common way to specify goals is to use verbs in their description that indicate a specific action.

For example, the goal "to study the use of symbolic notation in the algebra of propositions" can be expanded into a list of possible learning outcomes.

Student:

1) reproduces symbols and symbols of mathematical logic from memory;
2) recognizes symbols on logical formulas;
3) reads a logical formula using symbols;
4) composes a logical formula using symbols;
5) according to a given logical formula, using symbols, the type of formula will be determined.
6) forms a logical formula for verbal mathematical statements (definitions, theorems, properties, axioms, etc.) using the symbols of the algebra of propositions.

This example shows that the overall goal, on the one hand, can be reduced to a simple result of a low cognitive level (for example, options 1) and 2), and on the other hand, it can be expanded into a wide range of learning outcomes at different levels. Compiling such a list gives the teacher the opportunity to consciously build the learning process towards high-level cognitive goals. This possibility is visible, for example, from the following analysis of a rather complex goal.

"The student uses critical and logical thinking skills when studying educational information":

1) distinguishes between factual information and value judgments;
2) distinguishes between facts and assumptions;
3) identifies causal relationships;

ISSN NO: 2770-2367
November 2025

4) highlights errors in reasoning;
5) distinguishes essential arguments from non-relevant ones;
6) distinguishes between reasonable and unfounded estimates and facts;
7) formulates reasoned conclusions based on the text.;
8) indicates the prerequisites justifying the validity of the conclusions.

Note that this example of goal specification does not provide an unambiguous, absolutely reproducible decomposition of the goal into "observable actions." Each teacher will judge the presence of these signs based on their own experience, culture of thinking, and the specifics of educational information.

References:

1. Абдикаримова А.Б. Общие цели обучения математике в средних профессиональных учебных заведениях. Преподаватель XXI век. №2, 2013. -С. 27-30.
2. Popham W.J., Baker E. Systematic instruction. - Englewood Cliffs, 1970
3. Gronlund N.E. Measurement and evaluation in teaching. - 3rd ed. -N.Y.: Macmillan; Lnd.: Collier Macmillan, 1976.
4. D.I.Yunusova, R.R.Bakhritdinov. Assessment of the formation of universal learning activities in mathematics lessons. Central Asian journal of mathematical theory and computer sciences. 4 (3), 2023, 39-41.
5. D.I.Yunusova, R.R.Bakhritdinov. Universal learning actions in the lessons of mathematics for students of professional schools. International Journal of Education, Social Science & Humanities. 11 (3), 2023, 393–397.