

METHODS OF FORMATION OF STUDENTS' REFLEXIVE
THINKING ABILITY IN THE PROCESS OF HIGHER EDUCATION

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Annotation: The variety of forms of reflection corresponding to the age and other characteristics of students and the ways of assimilation of educational material is an important factor in the effective development of student's reflexive abilities. Special attention is paid to the essence of entering the student's reflexive position.

Current reflection involves the organization of students' mental activity after completing a cycle of subject activity and includes: stopping subject activity; activating reflexive activity, that is, returning children's attention to the main elements of ongoing cognitive activity: its directions, types, stages, problems, contradictions, results, and methods of activity used.

Keywords: student, activity, results and methods

An important factor influencing the effectiveness of the development of reflexive abilities in the learning process is the variety of forms of reflection corresponding to the age and other characteristics of students and the ways of assimilation of educational material. Learning occurs only when guided reflection is involved, which highlights the patterns of activity themselves - ways to solve learning problems or reasoning. Reasoning or reflexive judgments, in this case, are independent, responsible, thoughtful, reasoned reflections of the student. Reflexive judgment expresses individual impressions, positions, are always subjective.

Reflection is a very "subtle" organization of thinking, and in order to master the technique of reflexive exit, it is important to understand three points: why and where to "exit?", where to "exit?" and how to fix the "exit?". The technique involves recognizing the difficulty in the activity and fixing the situation in which it arose. If the student does not feel overcoming barriers and

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difficulties in educational and cognitive activity, then there can be no reflection. Awareness of the difficulty is the starting point of reflection in the lesson. At the same time, it is important for the teacher to identify the boundaries of the learning situation in which the difficulty arose. A necessary condition for personal reflection is the formation of a reflective position, which presupposes a certain awareness of oneself, one's activities (motives and results), and one's place in the world. After all, a reflexive position is the ability to take the position of another person or group and evaluate your own actions from this position. A reflexive exit is necessary in order to find a way to overcome the difficulty in activity, and for this you need to mentally go beyond the situation and decide on the choice of a reflexive position. Therefore, the technique of reflexive position is an angle, a point of view on the situation under consideration. The choice of a particular position is determined by its potential usefulness in relation to a given situation.

Reflective teaching methods actualize the student's ability to reflect, analyze, and philosophize. For example, writing an essay, a scientific essay-reflections; keeping a diary; a method of analyzing literary works and feature films; working with aphorisms and proverbs; working with metaphors; a method of introspective analysis; reflexive business games; micro-learning and introspection; reflective assessment of the results of classes, etc. The technique of reflection in the classroom, which helps students in developing their reflexive abilities, are orientation questions offered as a support for reflection.: - What are my main results, what have I realized, what have I learned? - Which assignments have aroused my greatest interest and why? - How did I complete the tasks, in what way? How did I feel about it? - What were my main difficulties and how did I overcome them? etc. Written reflection is particularly difficult and qualitatively effective. A technique ("Chain of scientific ideas") in which it is proposed to express theses on the topic under study and a question sent to the next student.

The relevance of research. At the present stage of public life in Russia, professional activity at almost any level and profile is becoming dramatically



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more complicated. This is especially true for people who carry out these activities in a particular field of higher professional education. This is due to the fact that the requirements for the level of professional competence of university graduates, their functional and direct professional literacy, and the ability to improve and update their knowledge and thinking strategies are increasing dramatically. The modern stage of society's development is characterized by unprecedented dynamism - in its most diverse manifestations, and this necessitates the acquisition by a university graduate of choice strategies - this applies both to a specific professional route and to methods and approaches for solving private and general professional tasks, which are almost never a priori defined and therefore require a qualified person to carry out a wide variety of reflexive, evaluative procedures. Analyzing this problem in relation to higher school pedagogy, we considered it necessary to terminologically designate it as the formation of reflexive thinking among students of higher educational institutions and define the latter as a type of cognitive activity in which the main emphasis is on the ability to comprehend the results of activities, as well as specific cognitive actions that led to it. Such an assessment, in the simplest version, involves correlating certain results and methods of obtaining them with known standards and standards, and in a more complex version, an independent search by the subject for these guidelines.

To implement the tasks set, a set of research methods was used: analysis of philosophical, methodological, sociological and psychological-pedagogical research on the problems of reflection and reflexive thinking; formulation, theoretical and experimental verification of hypotheses; comparative analysis; ascertaining, searching, formative and control pedagogical experiment, including statistical processing of materials. The scientific novelty of the research is:

1) in identifying the objective possibilities of the content of the natural science component of higher technical education in the formation of students' reflexive thinking, related to: a) the variety of dependency relationships of objects, phenomena and processes of natural sciences; b) the ambiguity of the

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models used, suggesting the important role of procedures for interpreting results, evaluating them and reflecting on the nature and sequence of the student's own cognitive actions, performed upon receipt of the result;

2) in the construction of evaluative content tasks specifically designed for the formation of reflexive thinking and involving the student's identification of the degree of truth of statements, conclusions and conclusions presented in the condition, the students' identification of errors, inaccuracies, inconsistencies and unlawful extensions of the boundaries of the applicability of scientific laws specifically included in the conditions of tasks by the teacher;

3) in developing a classification of these tasks and recommendations to the teacher on their compilation, taking into account widespread mistakes and unproductive approaches made by students;

4) in the development of fragments of the content of natural science education aimed at students' awareness of the unproductiveness of one-sided and excessive categorical assessments of the significance of surrounding phenomena and products of human activity;

5) in the development of fragments of the content of natural science education, illustrating to the student how in the history of science ideas and elements of knowledge (laws, theories, etc.) that previously seemed unshakable lost their significance and those elements of knowledge that were previously rejected by the scientific community regained their significance.

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