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HEURISTIC STRATEGIES OF SELF-DIRECTED EDUCATION IN UNIVERSITIES

Annotation: the article provides judgments about the prospects for the use of heuristic strategies in independent education and scientific and creative activities.

Key words: heuristics, heuristic strategies, theory of knowledge, philosophy of science, intuitionism, scientific and managerial decisions, logical approach,.

Introduction

The ability or ability to obtain independent education using heuristic strategies and methods is determined by the psychological and intellectual indicators of each person, from the point of view of the educational institution, each teacher and student (student), this ability, in turn, is the ability to work with data sources, general analysis and introspection, their work and it is formed and it is improved in the process of monitoring the activities of colleagues.

Materials and methods:

This includes empirical methods such as modeling, fact-finding, experiment, description and observation, as well as theoretical methods such as logical and historical methods, abstraction, deduction, induction, synthesis and analysis, as well as methods of heuristic strategies. The research materials are: scientific facts, the results of previous observations, surveys, experiments and tests; means of idealization and rationalization of the scientific approach.

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- science, technology, technology, production, education, service, culture; in political life, etc. It consists in acquiring knowledge and skills independently, but on a systematic basis [2].

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The main directions of independent education with the use of a heuristic strategy can be issues of a wide scale [1]: professional, in the field of knowledge (in the subject of education and study); psychological and pedagogical ((focused on relationships with students and parents); psychological (image, communication, art of influence, leadership qualities, etc.); methodological (methodological, pedagogical technologies, forms, styles and directions of study); - scientific and theoretical; legal and legal; ethical and aesthetic; - humanitarian and cultural; historical and toponomic; political and sociology; foreign languages, etc.

Results and discussion:

Specific forms, sources and results of independent education of a heuristic or creative nature include [2]: familiarization with additional scientific and

technical, scientific and technical, popular scientific literature in the specialty, independent finding and study of existing regulatory documents, direct acquaintance with the activities of modern industrial production, construction crowns; field study of building structures and the study of testing processes, the preparation of scientific and technical reports; obtaining information from Internet sites, viewing and studying video and audio materials through various media; reading periodicals related to the network, preparing reviews based on Internet information on the studied science, pedagogy, psychology, information and professional technologies; writing and defending scientific dissertations as an independent researcher; preparing scientific reports, articles and abstracts of articles, preparation for creative contests, scientific Olympiads and participation in them; participation in seminars, trainings, conferences, classes of colleagues; debates, advice and exchange of ideas with colleagues; mastering modern pedagogical methods during iterative learning [3]; Learning foreign languages; studying information, computer and telecommunication technologies [4], etc.

The purpose of including heuristic interpretation issues in independent learning is to create a fruitful ground for students to develop creative thinking and modeling skills [5]. At the same time, it is desirable that each problem is intended to be solved both algorithmically and heuristically. The student who solved the problem at the heuristic level is highly appreciated.

Type 1 problem. A subject test is given and an appropriate grade scale is assigned to it (Table 1):

Table 1

Heuristic hierarchical test problem

№	The content of the task	The highest score for completing a task stage
1	Solve the test!	3

2	According to the concepts of the test topic, make up 5 glossaries!	4
3	Within the topic, make a matching test of 5 items!	5

There is a type 2 problem. The task of a case study on a specific topic is presented and the appropriate evaluation criterion is given (Table 2):

Table 2

Heuristic hierarchical task by case stage

№	Task content	The highest score for completing a task stage
1	Solve the case study!	3
2	On the topic of the case study, make a glossary of 5 definitions!	4
3	Make a case study on a related topic, with an answer!	5

There are 3 types of problem. It is proposed to create a cluster related to a specific topic and an appropriate evaluation criterion is given (Table 3):

Table 3

Heuristic hierarchical cluster task

№	The content of the task	The highest score for completing a task stage 3
1	Create a cluster on the given topic, while	3

	observing the sequence, hierarchy of concepts!	
2	On the topic of the cluster, make a glossary of 5 definitions!	4
3	On the topic of the case study, make a glossary of 5 definitions!	5

There are 4 types of problem. The task is given to write an article on a specific topic and the appropriate evaluation criteria (Table 4):

Table 4

Heuristic hierarchical task of writing a scientific article

№	The content of the task	The highest score for completing a task stage 3
1	It is proposed to write an article related to a specific topic and it is given an appropriate evaluation criterion	3
2	Translate the article into English, write 5 glossaries on the topic!	4
3	After checking the article by the teacher, publish it in a local or foreign magazine!	5

Conclusion:

Due to the exorbitant speed of selection and adoption of cognitive or scientific decisions, heuristic algorithms are widely used in the fields of artificial intelligence and scientific creativity. Heuristic methods are based on an intelligent search for strategies for intuitive, computer-based and automated problem solving. using several alternative approaches at the same time, for example, experimental and theoretical approaches [4].

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