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The Pedagogical Importance of Organizing Lessons Based on Interdisciplinary Integration

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Abstract: The text discusses the issue of integration as a counterpoint to differentiation in scientific fields. It addresses the problem of solving challenges arising from the differentiation of sciences and their subfields, which were once unified. This differentiation has led to an increase in the volume of knowledge and requirements in each field, resulting in deeper specializations within and across sciences. Consequently, the range of professional interests in narrow specialties has narrowed, leading to the emergence of new scientific disciplines that struggle to understand each other.

Keywords: Integration, integrity, wholeness, interdisciplinary connection, fundamental, theoretical, regularities, thinking, differentiation, developmental indicator, effective.

Introduction: In the process of primary education, the general and individual characteristics of younger students are developed. One of the main requirements of the present time is the effective use of the internal and external capabilities of the native language, which is the leading subject (subject) in general education schools, in teaching the younger generation the rich scientific heritage left by ancestors, in developing the cognitive activity and thinking of the student, that is, not limiting oneself to giving knowledge about one subject in lessons, but also giving concepts related to other subjects in accordance with the content of the studied topic, forming skills and abilities in them. Many years of research have shown that primary school students, and later graduates, struggle to apply the knowledge and skills they acquire in certain subjects to the study of other subjects. They lack the ability to think independently and transfer their acquired knowledge to similar or new tasks. This necessitates organizing lessons based on interdisciplinary integration, as well as selecting and integrating knowledge from various disciplines.

Integration is characteristic of all spheres. When applied to the field of education, this concept is used in the sense of educational goals and forms of education. Both meanings are based on the principle of integrity and wholeness. Thus, integration is used in the sense of interconnectedness and wholeness.

The study of scientific literature shows that the foundations of the integration process go back to the distant past of classical pedagogy and are connected with the idea of interdisciplinary connections. In scientific, pedagogical, and methodological literature, the concept of interdisciplinary connection and integration seems to have the same meaning, but "integration is a much broader concept than interdisciplinary connection and represents the highest level of interdisciplinary connection".[3]

Analysis of literature

The works of T.L.Ramzaeva, G.N.Akvilev, N.Ya.Vilenkin, G.V.Belyunova are devoted to the problem of interdisciplinary and intradisciplinary connections in primary school. Regarding the integration process, I. Boguslavskov's article "From a Child to the World, from the World to the Child" deserves attention. The article states that "as early as the mid-19th century, it became clear that there was a major contradiction between the natural acceptance of the world as a whole by the child in school education and its artificial division into subjects." In various countries of Western Europe (mostly in Germany), authors were among the first to try to connect the studied phenomena to a single basis. In many cases, this was considered the world around us (regional studies).

Abu Rayhan Beruni, the great encyclopedic scholar who lived in the 9th century, addresses the issue of interdisciplinary connections in his work "Monuments Left by Ancient Peoples." The work covers almost all fields of knowledge, seamlessly transitioning from one science to another. The author says about this: "The goal is not to prolong the discourse, but to prevent the reader from becoming bored. Constantly focusing on the same thing leads to tedium and impatience. When a reader moves from one subject to another, it's like walking through different gardens. Before they fully appreciate one, another begins, and as it is said, 'every new thing has its own pleasure,' they become interested in seeing them and wish to examine them. Monotony tires and burdens the memory".[2]

At the end of the 20th century, many effective studies on the integration of education were conducted in the pedagogy of our country. In particular, A.Ch. Choriev, in his research work, theoretically substantiates the connection between pedagogy and fiction and identifies the general regularities inherent in both disciplines [7]. Sh.I.Mamaradjabov [4] in teaching physics, A.A.Salomov [6] if they have investigated interdisciplinary connections in mathematics teaching, in his scientific research work, T.N. Nuriddinov examines the issues of interdisciplinary connections in the general theoretical preparation of students in higher education. [5]

In her dissertation, B.S. Abdullayeva elucidated the didactic foundations for ensuring the interconnection between mathematics and social sciences and humanities subjects in academic lyceums. [1] He considers interdisciplinary connection as a didactic phenomenon that improves didactic conditions in the educational process and all forms of its teaching. The researcher, in ensuring educational interdisciplinary connections, very strictly coordinates the materials of academic disciplines that are close in content. In the above-mentioned works, interdisciplinary connections are taken as the object of research. The term integration has begun to be used in works published in recent years.

METHODS

The development of scientific knowledge has significantly influenced the advancement of the integration process. In the context of building a new society, the integration of scientific knowledge has evolved from an idea into a fundamental principle. Integration is closely intertwined with differentiation. These processes are reflected in the structure of the academic discipline system and in the search for methods to synthesize students' knowledge.

RESULTS AND DISCUSSION

In the structure of education, the concept of "integration" has two meanings: 1) creating a complete understanding (impression) of the surrounding world in students (here integration is considered as the goal of teaching); 2-finding a common platform for convergence of knowledge in individual disciplines (here integration is a teaching tool). The integration of disciplines in modern schools is one of the active approaches in seeking new pedagogical solutions to influence students more effectively. This integration enables the improvement of work processes, as well as the development of creative potential in individual teachers and pedagogical teams. Integration, as a phenomenon in "big" science, first emerged in its fundamental and mainstream fields. It arose on the basis of the differentiation of sciences and their branches, which were previously separated on a single basis, the growth of the volume of knowledge and requirements for them in each area, the deepening of specialties in sciences and within science, the narrowing of the range of professional interests of narrow specialties as a result of deepening, and the emergence of a new number of sciences that cease to understand each other on this basis. Thus, integration does not negate the scientific system between sciences. It is a way to overcome shortcomings and improve the system of sciences, aimed at deepening interdependence and interaction between sciences.

"Everything that is interconnected should be taught in that very connection," emphasizes Jan Amos Comenius. When a child studies a phenomenon in a particular lesson, they inevitably go beyond the boundaries of that subject, applying the knowledge, skills, and abilities acquired from other subjects. The interconnections and relationships between disciplines should actively guide this process. After analyzing our experiences and observations, we have concluded that there is an opportunity to improve the content of primary school education. In primary education, insufficient knowledge is provided to satisfy children's cognitive needs and aspirations for intellectual activity. This inadequate fulfillment of cognitive demands is one of the reasons for declining interest in learning. Introducing interdisciplinary connections and integration into education helps address such issues. Research indicates that interdisciplinary connections play a guiding and stimulating role in the stages of students' cognitive activity. The ability to transfer knowledge from one subject to another, which reflects the productivity of cognitive activity, serves as an indicator of a student's mental development. Transfer involves the interdisciplinary generalization of existing knowledge and the synthesis of new knowledge. Interdisciplinary connections in education introduce

elements of creativity, productivity, and inquisitiveness into students' activities. Based on these interdisciplinary connections, integrated lessons are organized to increase students' interest in the subject.

CONCLUSION

In conclusion, the organization of native language lessons based on interdisciplinary integration is one of the urgent problems, and the additional acquisition of knowledge and concepts related to various subjects by primary school students in the process of mastering native language education serves for a comprehensive and deeper understanding of the topic. Their interest in subjects increases, their knowledge repeats and becomes increasingly solid, harmoniously interconnected skills and abilities, the effectiveness of education increases, and initial research confirmed that organizing such lessons is an important tool in raising a comprehensively mature, broad-minded generation.

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