

## **Approaches to the Development of the Professional and Personal Skills of Future Engineers Based on the Metacognitive Approach**

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### **ABSTRACT**

*In this article, one of the modern approaches used in the study of specialized sciences, the metacognitive approach, is analyzed. Several approaches are important in the teaching of specialized subjects, including communicative approach, competence approach, person-oriented approach, integrative approach, cluster approach, metacognitive approach, etc. Recently, the importance of the metacognitive approach in the process of learning and teaching specialized subjects is increasing. A number of scientists in our country and abroad have and are working on the main importance of the metacognitive approach in the process of teaching specialized subjects.*

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### **Introduction**

In the continuous education system of our country, in addition to mastering theoretical and practical knowledge in the field of science, there is a need to equip them with professional competencies in accordance with world standards, and to improve the professional qualification system. After all, in the Address of the President of the Republic of Uzbekistan to the Parliament on January 24, 2020, the priority aspects of the reforms implemented and planned in the education system, as well as in all areas, were noted. In particular, in the Petition, effective continuation of the reforms started in the preschool education system, improvement of the quality of education and training in general education schools, strengthening the integration of higher education with academic science and production among all stages of the education system. achieving interdependence, interdependence, as a result, priority aspects aimed at bringing the entire continuous education system to a new level have been expressed. The content of the reforms implemented in the field of pedagogical education in our country is to strengthen the position of the teaching profession in society, to attract advanced foreign experience and innovations, to ensure the integration of education and production, to improve the main and auxiliary means of education in accordance with the times. , focused on issues such as greater involvement of the private sector in the field and improvement of the system of working with gifted students. Special qualities of the teaching profession, including their mastery of high didactic skills and technical skills, knowledge of pedagogical competencies, creative approach to the process of education and upbringing as a person who has achieved universal qualities, are important. becomes important. Mastering professional competences, in other words, professional practice organized in schools is important in achieving professional competence[1,2]. Based on the subject of our research, it is appropriate to analyze the psychological and pedagogical literature that shows the solution to the problems in this process in order to reveal the main directions of studying the issue of training a competent teacher. Despite the diversity of existing conclusions, what is common to all studies is that they emphasize that the level of professional competence depends on the level of formation of pedagogical skills of students [3].

In the conditions of competence-based education, the teacher performs a slightly different function and role in the educational process compared to traditional education. competent adviser and assistant; it is necessary to be a specialist who can evaluate the behavior of students in a psychological and pedagogical aspect, who can quickly help them with their effective actions and eliminate difficulties in discussing and applying the acquired knowledge. This role is more complex than traditional education and requires professional competence from the teacher[4]. The educational process in any educational institution must be one step ahead of today's requirements of preparing young people for life, work and personality development, which, in turn, requires the professional training of teachers to "double" meet these requirements. " will only happen if it is higher. Only this situation is guaranteed by the successful implementation of any positive changes in the field of tomorrow, future-oriented education system and pedagogy. According to the researchers, in addition to the requirement to advance "double" in the training of pedagogues, in real life, if the teacher lags behind the school life, and the educational system lags behind the demands of the school, it "falls twice behind the demands of the society". This feature of pedagogical education shows that education should be taken into account in the improvement of all spheres of life and, above all, in the process of reforms [5].

In the field of higher education, determination of the actual needs for education is carried out based on the determination of the level of their professional training, the aspects that meet the requirements and the existing shortcomings and gaps. Based on this, it is appropriate to implement innovations. This leads to the development of pedagogical competence. Another important situation during training sessions is to organize the educational processes of students based on their needs and to focus on the personality of the student.

These include methods of forming students' interest in learning, their sense of duty and responsibility in the educational process. Organization and development of collaborative work of subjects in the further improvement of pedagogical processes, the effectiveness of developing their activity in the system of goals and tasks that are important to achieve is inextricably dependent on existing motives and motivation[10]. The field of education is a social institution that reflects all the problems of society.

It is necessary to enrich and improve spiritual and educational values in modern education, to humanize it through educational activities, to activate educational activities with spiritual and educational growth, and through pedagogical and psychological support. it is necessary to educate highly moral, responsible, creative, competent persons. Raising a person from the spiritual and educational side is an important issue of education today, and for this it is important that the teacher himself has a high level of spiritual and educational competence [6].

Spirituality is a manifestation of qualities related to the enrichment of one's inner world, aimed at revealing one's personal potential. Spirituality is a description of self-awareness as a person, reflecting perfection and balance of the inner world.

The metacognitive approach has been adopted by researchers in many fields, including social, cognitive, and educational. Systematic studies of metacognitive processes are currently ongoing.

According to Wenden, this approach represents a "metacognitive body of knowledge" position in language learning.

Based on this, we can state that a metacognitive approach teaches students to think about how they think and approach learning, and in addition to students' repertoire of social skills and strategies, such an approach is personal and individuals develop skills to solve interpersonal problems independently.

Successful learning of a metacognitive strategy is important because it allows students to better manage their knowledge and identify weaknesses that can be corrected by building new cognitive skills. Every student who acquires a skill is capable of metacognition, that is, he thinks about how he performs this skill [7].

Promoting metacognition begins with students' understanding that metacognition exists, differs from knowledge, and enhances academic success.

Metacognitive strategies play a more important role than other strategies because language learning is

faster if the student understands how to organize his learning by using the strategy.

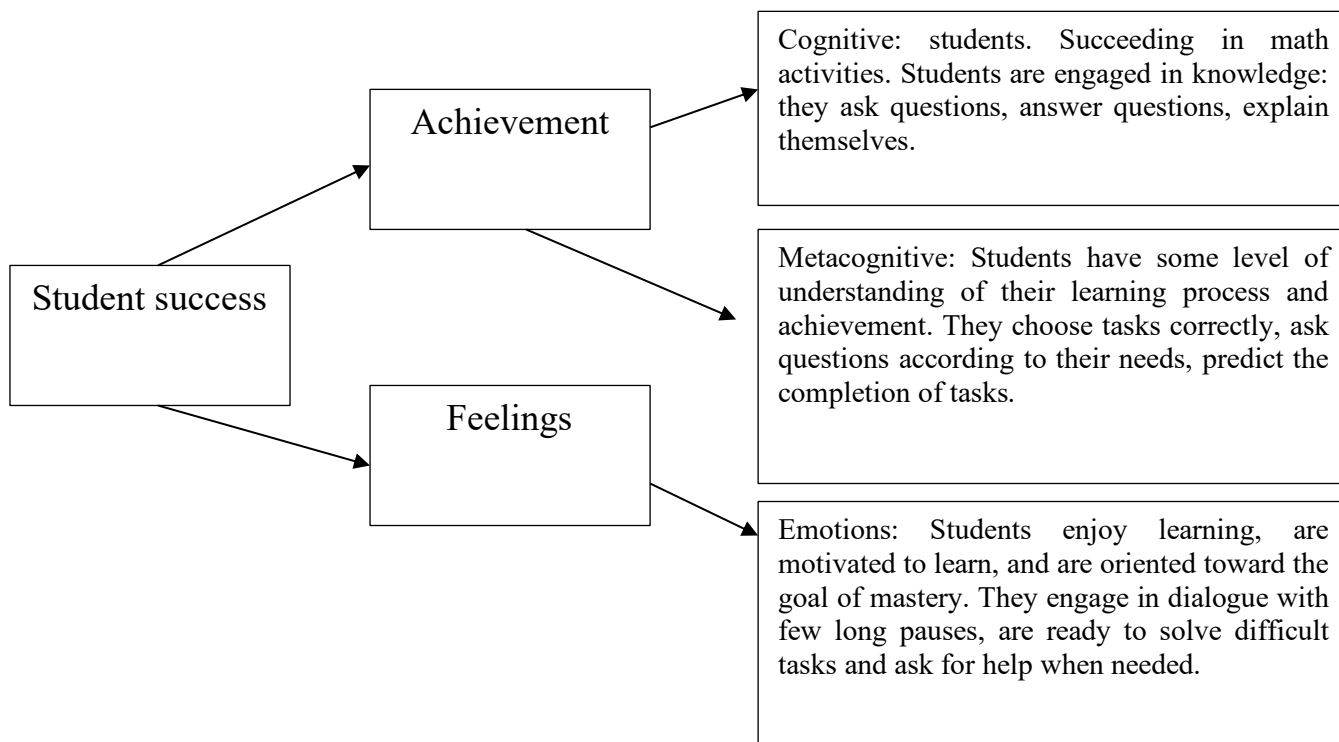


Figure 1: Schematic of a step-by-step practical approach to teaching

Metacognitive strategies help students understand themselves, manage the overall learning process and specific learning goals. A group of metacognitive strategies help people better understand themselves as language learners [8,9]. Self-discovery strategies include identifying personal interests, needs, and learning style preferences.

In conclusion, we must say that introducing future engineers to various methods and methods of management, further developing their professional competence, arming them with the secrets of professional development, and forming a methodology for working with innovative ideas is one of the important factors that increase the effectiveness of education.

In order to ensure the effectiveness of pedagogical processes, future teachers should have knowledge of strategic planning, design, modeling of pedagogical processes, coordination of student activities and ensuring their activity, methods, methods and principles of pedagogical process management according to situations, innovative technologies and based on them, it is important to develop the skills of organizing innovative activities of the subjects of the pedagogical process.

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