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## THE ESSENCE AND LOGICAL EXPLANATION OF THE CONCEPTS OF “METAPREDMET COMPETENCE” AND “METAPREDMET COMPETENCE” IN SCIENTIFIC SOURCES

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Modern industry and manufacturing require future metrologists not only deep theoretical knowledge, but also professional and personal skills such as the ability to take independent initiative, solve problems, and work effectively in a team. Therefore, the higher education system is faced with the task of aligning the level of professional training of future specialists with the requirements of the labor market. In Uzbekistan, great attention is also paid to this issue, in particular, the Concept for the Development of the Higher Education System until 2030 was approved by Decree No. PF-5847 of October 8, 2019 [ **Error! Reference source not found.**]. The next logical stage of our research work will be to study the current state of the problem of the development of the concepts of "metaprodmet competence" and "metaprodmet competence". If we associate the current development of our country with significant changes in the field of technology, industry, mechanical engineering and construction, then it is precisely this aspect that creates a need in our society for a qualified future metrologist engineer who has thoroughly mastered his profession and has certain personal qualities.

One of the urgent tasks of today is for the future specialist to quickly adapt to today's demands and changing conditions, to constantly strive for excellence, and to be ready to independently and creatively solve problems that arise in their professional activities. In the course of the research it was found that “competence” is a personal quality of future metrologists, which is becoming increasingly important in various spheres of their life activity. It is defined as a complex, multi-component and multi-directional phenomenon – a characteristic of a person who has successfully passed the processes of socialization and is able to fully demonstrate his capabilities in the conditions of modern society. In many scientific and pedagogical sources, competence is interpreted



as an interdisciplinary subject of activity. Such a broad interpretation of competence is widely cited in scientific research works and methodological literature.

The competency-based approach is one of the foundations for improving practical education. Today, what is required is not only professional skills, consisting of the skills to perform one or another technological operation, but also competence, consisting of a set of professional and personal qualities, such as professional skills, social ethics, the ability to work in a team, and initiative.

In developing a metasubject approach in higher education and studying its mastery in future metrologist engineers, teachers faced a number of questions: "What are meta-subjects, meta-activity, meta-subjects of meta-knowledge, meta-paths? They in the middle one one with how connection " Is there a higher level ? " in education metasubjectivity principle of providing other methods " Is there ? " " Metasubject the results to form how technologies and tools help "will give ? "

Meta - above, general, integration. "Meta" – (Greek meta – "between", "after", "through") – is a complex word with many meanings: words denoting the meaning of between, following something, moving on to something else; meta-activity, meta-subject, meta-knowledge, meta-skill (meta-method). This is sometimes called universal learning knowledge and are called methods . Sometimes while - thinking is an activity .

Y. Gromyko identified the following meta-themes: "Sign", "Knowledge", "Problem" and "Task". Each of them has its own goals [2;156-179- b ; 3; 45-85- b ; 4; 156-179- b ]:

"Sign" is the ability to form in children the ability to use diagrams, images, and drawings, to express through diagrams what they understand, what they want to say, and what they want to do.

"Knowledge" is the formation of one's existing abilities, in particular, concepts and the ability to work systematically.

"Problem" - the ability to identify and solve problems, set goals, and approach the issue positively.

" Task " is different kind knowledge in the fields every kind kind of problems solution to do roads understood .



For example , the future metrological engineers almost all from sciences scheme , diagram , images , formulas , symbols with to work right comes . These geography maps , chemical compounds and physical , mathematical formulas , Russian language in their classes sentences , general and expertise from sciences and principal schemes , special cipher codes different kind to the topic related or to the task related tables , diagrams (formula, scheme ) and others own inside takes . However, sometimes future experts such images perception in the process of to difficulties face They come . And The meta -topic “ Sign ” mastery in the process future specialists different kind graphic the images understanding , diagram (formula, scheme ) and his/her behind standing thing between dependency to understand their studies necessary , therefore after they fix they get .

Diagrams himself/ herself metasubjective education content integration principle as future metrological engineers being studied science , world about knowledge to the system attitude shapes . Read material content integration degrees every kind to be possible . All study sciences touching the most high degree “ man-society-nature ” their relationship reflection At this level universal laws with order insertable universal relationship seeing Meta - topic to oneself typical meaning and features there is :

1. Meta- topic somehow thought-activity organization around built . They character , knowledge , problem , task , category to be possible . Their all practical to activity directed , universal metaobject to the character They have . based on new kind of study subjects - metatopics construction possible .
2. It is necessary to have a good knowledge of social studies topics, as this will help to competently compile and distribute educational material of a certain content.
3. Focus on developing the basic skills of future metrological engineers.
4. Lesson complexity increase opportunity giver methodological of forms diversity. Conception far to the history despite , its only interpretation still exists not , different education in institutions him/her different roads with So , education metasubject content when known one study to science related not , on the contrary , every how training sciences within the scope training process providing activity understood . So so that it followers separate meta- objects separately separate they show “ Symbol ” , “ Knowledge ” , “ Problem ” , “ Task ” .



For example , the meta -topic “ Sign ” within future specialists themselves specialty in the sciences principal schemes , diagrams , formulas , images , pictures through ability They develop . They want to say what they understand . what happened , what what they are trying to think or what to do what they want schemes images through to express they learn .

From the above interpretations, it can be concluded that metasubject competence is a complex of universal educational and cognitive actions aimed at mastering academic subjects, revealing the internal capabilities of students and applying educational results, increasing the effectiveness of their own professional activities, and solving complex professional problems that are important for the environment. As part of our research, we will examine the essence of the concepts of metasubject competence and metasubject competence in scientific sources, as well as the concept of metasubject in the history of pedagogy in general.

### Used literature list

1. Resolution of the President of the Republic of Uzbekistan No. PQ-4699 dated April 28, 2020 “On measures to widely introduce the digital economy and electronic government”.
2. Resolution of the President of the Republic of Uzbekistan No. PQ-4699 dated April 28, 2020 “On measures to widely introduce the digital economy and electronic government”.
3. Resolution of the President of the Republic of Uzbekistan No. PQ-4699 dated April 28, 2020 “On measures to widely introduce the digital economy and electronic government”.
4. Resolution of the President of the Republic of Uzbekistan No. PQ-4699 dated April 28, 2020 “On measures to widely introduce the digital economy and electronic government”.
5. Resolution of the President of the Republic of Uzbekistan No. PQ-4699 dated April 28, 2020 “On measures to widely introduce the digital economy and electronic government”.



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6. Resolution of the President of the Republic of Uzbekistan No. PQ-4699 dated April 28, 2020 “On measures to widely introduce the digital economy and electronic government”.