

---

## THE ROLE OF PROFESSIONAL COMPETENCE FOR ENGINEERS.

Ruzmetova Sayyorakhan Timurkhanovna

Doctor of Philosophy (PhD) in Pedagogy, Department of "Pedagogy and Psychology" of Tashkent State Technical University. Tashkent, Uzbekistan.

Mamatmuminov Otabek

Student of the Faculty of Electronics and Automation of Tashkent State Technical University. Tashkent, Uzbekistan.

Toshpulatov Safarmurod

Student of the Faculty of Electronics and Automation of Tashkent State Technical University. Tashkent, Uzbekistan.

### Abstract:

Special additional requirements are placed on the content and level of professional training of future engineers. They are related to the specific characteristics of engineering practice, the level of relationship formation, and acceptance of the norms and values of the professional community. Development of creativity skills of future engineers has its own characteristics.

**Key words:** Ability, future engineers, creativity, identity, adolescence, character, individualization, team approach.

Even at the stages of higher education, interest in the problem of future engineers attracts the attention of the educational institution, not only scientists of various fields of science. Among them are employers who want to hire specialists who encourage them to quickly enter the activity process and competently perform their professional duties.

Special additional requirements are placed on the content and level of professional training of future engineers. They are related to the specific characteristics of engineering practice, the level of relationship formation, and acceptance of the norms and values of the professional community. The professional personality of the student - the future engineer-engineer is rarely the subject of study nowadays. This is related to the instability and complexity of the concept of "professional identity" and the characteristics of its components.



The analysis of psychological-pedagogical literature showed that there is enough literature devoted to the problem of professional identity, with a sufficiently clear description of its components. This is a set of features that help to act in the choice of a future profession, to decide on the choice of a professional development strategy and to realize personal professional potential. The main directions of domestic and foreign psychology, which reveal the problem of professional development of students, consider this process from the moment of professional self-determination and choice. Education at institutes and universities Yu.P. Povarenkov is one of the stages of professional development of a person. The scientific process of professionalization at the institute is divided into two periods: the first, educational and academic (1-3 courses), the second - educational and professional (the end of the 3<sup>rd</sup> and 4<sup>th</sup> courses).

Our research shows that it is necessary to carry out the phenomenon of professional identification more often in the course of the lesson. Only then can we make progress in educating future engineers.

Identification is a psychological phenomenon in which the interlocutors try to put themselves in each other's place in order to perceive each other more correctly. That is, trying to understand someone else through one's own knowledge, imagination, feelings, comparing oneself with someone (consciously or unconsciously) is identification.

The development of creative abilities of future engineers has its own characteristics, which are mainly determined by age-related changes of the following nature:

- ✓ adolescence
- ✓ one of the most important periods associated with the rapid development of all leading components. It is accompanied by strong physiological changes associated with puberty. This age is the period of formation of a person's worldview.
- ✓ a system of views on the world around him, himself and other people. A certain estrangement from characteristic adults and strengthening the reputation of peers. It is at this age that the desire to compare oneself with oneself arises, voluntarily or involuntarily. this is an important feature of age; development of mutual understanding and interaction skills; On the basis of mutual attraction and psychological compatibility or common interests, friendship, sensitivity, empathy, sympathy and penetration into each other's inner world develop in teenagers.



In our opinion, it is precisely these features that allow the teacher to organize the creative activities of future engineers in groups formed on their own initiative. The processes of self-knowledge in the interpersonal relationships of future engineers are so involved that it is impossible to observe a sharp decline in interest in learning.

One of the leading features of this century is professional self-determination, where human interests play a major role. Unfortunately, these interests are not equally stable for all future engineers, just as their psyches are generally different from each other. According to Y.V. Ketrish, student age is the most effective for the formation of knowledge, professional development, and formation of thinking culture. He believes that this creates optimal conditions for mastering professional roles and types of activities in new conditions.

Scientists identify several sources of interest formation in teenagers:

- higher education institution; there are rare cases in which a permanent passion for a subject or even a profession is formed through the attitude towards the teacher;
- family; often a son or daughter wants to become a programmer or specialist in another field, like their father or mother;
- areas of interest - higher education institutions of mathematics, art studio, music or choreography, sports sections; there are teenagers who cannot decide and often change their circles - they are people who do not have stable interests for various reasons.

In our opinion, a teacher with knowledge of pedagogy and creative potential can arouse interest in a certain profession;

- The development of the interests of future engineers is also helped by the phenomenon of adolescence, which in pedagogy is the need for new sensations - sensory "thirst" as the desire to see, hear, try, feel something new. is called The desire for novelty (and not only on the positive side) is especially characteristic of teenagers. We are sure that it is the teacher who can help the teenager to understand his potential and other abilities; After all, it is no secret that if a young, inquisitive teenager is not supported by adults and does not understand the essence of his interests, he either completely abandons the work he started, or switches from one interest to another;
- The next feature related to the conditions for the development of creative abilities of future engineers often contradict each other in terms of content and norms that



regulate them. Relationships with peers are usually constructed as equal partners and are governed by norms of equality.

In addition, socializing with peers may be more beneficial in meeting a teenager's current interests and needs, and then he may move away from higher education and family. In our opinion, the creative activity of future engineers can protect them from the negative effects of the environment.

It should be noted that during adolescence, peer group isolation is more stable than before. The similarity of interests and problems that interest them, the ability to openly discuss them without fear of ridicule and being on an equal footing with peers - the atmosphere in such groups is more attractive for teenagers than in adult groups. Of course, collective creative work should be systematically and continuously implemented, give it creativity, and develop the initiative of teenagers. According to R. M. Granovskaya, preservation and development of creative potential in adolescence is possible when real dialogic forms of education are discussed, problem conversations that cover the cognitive needs of students, which helps to prevent a decrease in interest in learning.

In the educational system, authorship programs developed taking into account the young characteristics and creative abilities of future engineers play a major role in the development of their creative abilities. A unique aspect of the development of creative abilities during the student period is the formation of specialized creativity during this period. That is, in this period, the determination and implementation of the future engineers' lifestyle is combined with individualization.

### References:

1. Guilford J. P. Creative talents: Their nature, uses and development. – Bearly limited, 1986.
2. Z.N.Yulchiyeva, S.T.Ruzmetova. Muhandislik psixologiyasi.(O'quv qo'llanma). –T.: “Innovatsion rivojlanish nashriyot-matbaa uyi”, 2023, 252 bet.
3. Azizxo'jayeva N.N. Pedagogik texnologiya va pedagogik mahorat: O'quv qo'llanma. -T.: TDPU, 2003. – 174 b.
4. Юрин В.Н. Компьютерные технологии в учебном процессе инженерного образования // информационные технологии. 1999.-№ 3 - С. 45.
5. Шнейдер, Л. Б. Профессиональная идентичность: теория, эксперимент, тренинг / Л. Б. Шнейдер // М.: МПСИ, 2004. – 335 с.



6. Alimov, A. A. (2016). Improving the Training the Future Teachers of Special Disciplines in Uzbekistan. Eastern European Scientific Journal, (1), 113-117.
7. Toirov, B. B., Khamidov, Y. Y., & Asadova, Z. A. (2019). INNOVATIVE TRAINING TECHNOLOGIES. BULLETIN OF MASTER'S,(5-3), 117.

