THEORETICAL BASES FOR DEVELOPING LEGAL COMPETENCE IN FUTURE TEACHING ENGINEERS IN THE PROCESS OF PROFESSIONAL TRAINING

Abstract.

The study and analysis of the pedagogical achievements of higher education theorists and practitioners in the formation and development of legal consciousness and culture of future engineers-teachers has made it possible to identify problems and understand that the training of future engineers in a higher technical education institution necessitates a new understanding of the professionalism of an engineer, which is associated with qualitative changes in technical activity.

The article focuses on the concept of "professional competence of a future engineer-teacher", which is understood as an integrated personal formation that includes professional knowledge in the field of production, practical skills in solving production problems, personal qualities that allow performing professional teaching activities at a high level.

The author establishes that depending on the level of compliance with the requirements of legislation, legal knowledge is classified as follows: legal knowledge which is unsystematic in nature; formal legal knowledge; analytical legal knowledge; active legal knowledge. And the concept of "legal competence" is defined as the level of legal awareness of a student and his/her legal activity; a set of knowledge, ideas, and value concepts which determine the choice of human behaviour justified by law; and the ability to effectively carry out professional activities in the context of financial and economic independence.
Particular attention is paid to the study of the process of formation and development of legal competence. It is proved that in the process of obtaining the speciality of an engineer-pedagogue, students develop basic legal competences on the basis of existing key legal competences. The development of legal competence involves mastering by the student not separate elements of legal knowledge, skills and abilities of professional and personal qualities, but mastering a comprehensive procedure for obtaining legal knowledge, which should be of a personal and active nature.

**Key words:** engineering and pedagogical education, legal competence of engineers-teachers, academic discipline, means of developing legal competence.

**Introduction.** The current realities of Ukrainian society demonstrate the lack of legal competence of people, which is an integral part of their lives. The Laws of Ukraine "On Higher Education", "On Scientific and Scientific-Technical Activities", and the National Doctrine of Education Development of Ukraine in the XXI Century stipulate that professional training of future specialists in the area of legal consciousness and culture, civic maturity should be carried out in higher education institutions.

Considerable attention should be paid to the definition of the concepts of "engineering and pedagogical education" and "legal competence of engineers and teachers". Thus, "engineering and pedagogical education" is understood as a new type of higher education, which is developing as an integrative direction that combines both education and production, both pedagogical and technical sciences [5, p. 137]. The concept of "legal competence of engineers-teachers" implies the regulation of educational activities along with the introduction of new legal provisions on which the organisation relies [5]. The basis of legal competence of educational engineers is their knowledge of legal norms, which allows them to understand the content of legislative documents, and in their future professional activities to comply with the requirements of current legislation. Therefore, the main goal of forming and developing legal competence of future engineers-pedagogues is to build and unleash the potential of legal culture and legal responsibility in the academic sphere in accordance with the
legislative and legal regulation. That is why the issue of formation and development of legal competence of future engineers is an urgent need.

**Analysis of recent research and publications.** The development of topical issues of professional training of engineering and pedagogical staff, its content and modelling of pedagogical systems and processes are reflected in the works of A. Aleksiuk, N. Bibik, I. Ziaziun, O. Kovalenko, V. Kurok, T. Lazareva, L. Tarkhan, S. Yashchuk, etc.

The issue of formation and development of legal competence of specialists in various fields is addressed in the scientific works of O. Armyskyi, A. Budas, I. Halushchak, Y. Kichuk, D. Kovalenko, V. Pugach, S. Pugach, I. Ogorodniychuk, O. Radkevych, and others.

At the same time, it should be noted that, despite the theoretical and practical value of these works, at the present stage, due attention has not yet been paid to the problems of developing the legal competence of future engineers-pedagogues in professional training.

The urgency of the problem of forming legal competence in future engineers-pedagogues is due to a number of existing contradictions between the requirements of production, to a specialist - a future engineer who must have a sufficiently high level of legal knowledge of labour (engineering and pedagogical: regulatory and methodological support of the educational field of professional activity) law, administrative law and traditional approaches to professional training of students, which are now more focused on the system of general ideas about the existing rules of law regarding Legal knowledge is seen as knowledge of laws, legal provisions, statutes, other regulatory documents and sources of legal information. Of course, awareness of current legislation alone is not able, as practice and special scientific research shows, to ensure a high level of legal awareness and legal culture in general.

The issues of the content and peculiarities of the development of legal competence of this category of engineering and pedagogical workers have not been sufficiently studied at the present stage.
The purpose of the article is to consider the peculiarities of development of legal competence in future engineers-teachers, to highlight the existing problems and to determine the prospects for their training in a higher education institution.

The main material is presented. Training of future engineers-teachers in a higher technical education institution necessitates a new understanding of the professionalism of an engineer, which is associated with qualitative changes in technical activities: the complexity of the content and the rapid growth of legal knowledge, the spread of information technology to all sectors of the economy.

The professional competence of a future engineer-teacher is an integrated personal formation that includes professional knowledge in the field of production, practical skills in solving production problems, personal qualities that allow for high-level professional teaching activities.

Researchers studying the phenomenon of legal competence of a future engineer-pedagogue student in connection with the performance of professional functions associate it with the attitude of the individual to law "as a social, state and personal value"; with legal education "as a body of knowledge on legal issues"; with legal readiness - the presence of "skills to solve specific legal issues" [6, p. 25-31].

The development of legal competence of future engineer-pedagogue involves mastering by the student not separate, isolated elements of legal knowledge, skills and abilities of professional and personal qualities, but mastering a complex procedure in which for each specific direction there is an appropriate set of educational components: the educational component, which involves the development of the theoretical component of legal competence and provides the future engineer-pedagogue with general legal knowledge (professional, political, managerial, administrative, and legal).

Taking into account all of the above, higher education institutions are creating curricula for teaching the discipline "Theoretical and Legal Foundations of Education". The purpose of one of these training programmes for future engineers-pedagogues, which is being implemented at the Ukrainian Engineering and Pedagogical Academy, is to develop students' professional and legal competence, which in the system of
training engineers-pedagogues is a component of general professional competence, and also involves the development of instrumental competence in mastering methods of self-organisation in the implementation of educational and cognitive activities. It is this goal that directs the student's training to a clear understanding of the existing system of educational legislation; practical application of the acquired legal knowledge in professional activities; drafting of regulatory documents in the field of educational process, taking into account the provisions of regulatory legal acts. Thus, the study of this discipline should form students' clear understanding of the system of vocational education in Ukraine; ensure the ability to apply legal norms in the professional activities of an engineer-pedagogue; develop skills to obtain the necessary information through the analysis of regulations in the field of vocational education.

The expected learning outcomes include students' knowledge of the basics of current regulations, legislation, industry standards of professional activity in institutions, at work, and in educational organisations:

define legal terms such as "rule of law", "source of law", "regulatory act", "system of legislation";
explain the main provisions of such legal acts as the Law of Ukraine "On Education", the Law of Ukraine "On Higher Education";
analyse legal acts in the field of education;
defend their rights based on legal acts;
classify legal acts of different levels in the field of education and have a clear understanding of the nature of their interaction;
determine the compliance of the content of various documents with the provisions of the educational legislation of Ukraine
compare and identify differences in the legal and regulatory documents in the field of education of different years, different educational institutions and different countries, etc.

Depending on the level of compliance with the requirements of the law, legal knowledge is classified as follows:
a) legal knowledge that is unsystematic (students understand legal provisions shallowly, superficially, have a false or misleading idea of the content of some articles of laws, regulations, statutes);  

b) formal legal knowledge, the acquired knowledge cannot be applied or used to solve real-life legal issues due to the lack of legal training;  

c) analytical legal knowledge, the possession of which implies the ability to analyse one's own actions and actions of friends, to correlate their nature and consequences with the requirements of the provisions of laws and statutes, while there is a passive attitude to legal self-education as a means of expanding the legal outlook;  

d) active legal knowledge, which involves using it in interpersonal relationships with friends, teachers and the administration of the institution in difficult, conflict situations. There is a process of deepening one's own legal knowledge and making legal decisions [3].

As we can see, in the process of obtaining the speciality of engineer-pedagogue, students develop basic legal competences on the basis of existing key legal competences.

In the process of teaching the discipline "Theoretical and Legal Foundations of Education", both active and interactive teaching technologies are used to enhance students' learning and cognitive activities, including lectures of a problematic nature, mini-lectures, work in small groups, seminars-discussions, brainstorming sessions, case method, presentations, introductory (initial) games, project work method, computer simulations, Delphi method, scenario method, visual support banks [5; 6; 7] (tab. 1)

The development of legal competence involves the student's mastery of not separate, isolated elements of legal knowledge, skills and professional and personal qualities, but mastery of a comprehensive procedure in which for each specific area there is an appropriate set of educational components that have a personal and activity character [7; 8]. 

| Table 1 |
Distribution of forms and methods of activation of the learning process by topics of the discipline

<table>
<thead>
<tr>
<th>Topic</th>
<th>Practical application of educational technologies</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Educational legislation in the system of Ukrainian legislation</td>
<td>Problem-based lecture, small group work, presentation of results, visual support banks</td>
</tr>
<tr>
<td>2. General description of the legal education system in Ukraine</td>
<td>Mini-lecture on working in small groups, presentation of results, creation of a portfolio</td>
</tr>
<tr>
<td>3. Evolution and factors of legal development</td>
<td>Problem-based lecture, visual support banks</td>
</tr>
<tr>
<td>4. Legal status and social and legal protection</td>
<td>Mini-lecture, quizzes, tests, exercises</td>
</tr>
<tr>
<td>5. Peculiarities of organising the educational process in the system of vocational education</td>
<td>Problematic lecture, classification and analysis of regulations in the field of education</td>
</tr>
<tr>
<td>6. Peculiarities of regulatory and legal support for the organisation of the educational process in the system of vocational education</td>
<td>Mini-lecture, small group work with tables</td>
</tr>
<tr>
<td>7. Pedagogical support and compliance with legal ethics</td>
<td>Mini-lecture, small group work, solving legal situations, presentation of results</td>
</tr>
<tr>
<td>8. Methods of legal advice in educational professional activities</td>
<td>Problem-based lecture, small group work, presentation of results, portfolio</td>
</tr>
<tr>
<td>9. Scientific, methodological and legal support of the professional activity of an engineer-pedagogue</td>
<td>Mini-lecture on the issue, work in small groups, presentation of results, visual support banks</td>
</tr>
<tr>
<td>10. Management of educational activities in educational institutions: legal regulation</td>
<td>Mini-lecture on &quot;Regulatory and legal support. Management of an educational institution, legal regulation&quot;, work in small groups, presentation of results, visual support banks</td>
</tr>
</tbody>
</table>

This includes, in particular, the educational component, which has three priority tasks:

a) development of the theoretical component of legal competence, which provides the future engineer-pedagogue with general legal knowledge that contributes to the successful organisation of professional activity and the implementation of legal activities in the organisation; creates the basis for the formation of modern legal thinking, generates acts of legal consciousness;
b) development of the practical component of legal competence of the future engineer-pedagogue, which is determined, first of all, by the set of professional skills that determine the functional readiness of the engineer-pedagogue to solve the problems of legal activity (information and intellectual, prognostic and projective, organisational and regulatory, reflective, emotional and volitional, etc;)

c) development of the personal component of legal competence, which forms such professional and personal qualities as: professional and ideological (interest and activity in professional and legal training), professional and behavioural (demanding compliance with legal norms), personally significant (humanistic orientation of the personality, adequate self-esteem, etc.) [4].

Thus, the concept of "legal competence" is defined as the level of legal awareness of the student and his/her legal activity; a set of knowledge, ideas, value concepts that determine the choice of legally justified human behaviour; the ability to effectively carry out professional activities in conditions of financial and economic independence [5].

The training of future engineers-teachers in higher engineering and pedagogical educational institutions necessitates a new understanding of the professionalism of an engineer-teacher, which is associated with qualitative changes in technical activities: the complexity of the content and the rapid growth of legal knowledge, the spread of information technology to all areas of production [3; 4].

Thus, it can be concluded that the legal competence of future engineers-pedagogues is the ability to successfully carry out both pedagogical and engineering and production activities in accordance with the requirements of current legislation and regulations, in relation to the activities of educational organisations, characterised by the availability of legal knowledge, skills, abilities, ways of legal thinking, and the formation of an appropriate level of legal awareness, which is manifested in lawful professional behaviour in solving pedagogical problems.

While studying the issues of formation and development of legal competence of future specialists, N. Bura, V. Holovchenko, V. Zenin, V. Kotiuk, V. Oksamytnyi, N.
Kozyubra developed certain recommendations which, in our opinion, should be followed, namely

- teaching law should not be limited to recounting examples of existing norms of behaviour, but should give their real assessment in terms of legal regulation;
- to pay considerable attention to the correlation between legal norms and other social values, in particular, moral norms, focusing on the latter being enshrined in law;
- to give examples of legal phenomena of legal norms that ensure satisfaction of the interests of a person and youth in particular;
- focus on the positive characteristics of legal norms, avoiding excessive criticism of both legal norms and state institutions that implement these norms;
- invite legal practitioners and civil servants to communicate with young people, who would use real-life examples to prove the need for knowledge of law and its practical significance;
- to reveal the importance of law in the lives of young people, primarily through positive examples of its observance and the benefits of working within the law;
- substantiate the ideas of the value of law and use the above proposals on examples relevant to the life of young people (Bura et al., 1985, p. 38-42) [1].

We consider this approach to be important in relation to the competence-based understanding of the process of formation and development of legal competence of specialists in non-legal specialties, since it contains essential features that allow taking into account not only legal knowledge in the implementation of professional functions, but also a system of universal (socially relevant) and special (professionally necessary) qualities, values, and motives.

**Conclusions.** An analysis of the literature on the peculiarities of the development of legal competence of future engineers-teachers in higher engineering and pedagogical education institutions shows that the problem of forming the legal competence of students of technical specialities has not been fully studied and requires in-depth research. It is established that due to the introduction of disciplines aimed at the formation and development of students' legal competence, the legal competence of
future engineer-pedagogues provides for the possibility to successfully carry out both pedagogical and engineering and production activities, in accordance with the requirements of current legislation and regulatory documents, which characterizes the availability of legal knowledge, skills, abilities, ways of legal thinking in future specialists, which are manifested in lawful professional behaviour in solving pedagogical problems.

**Further prospects** of scientific research should be aimed at substantiating the substantive aspects of the model of development of legal competence of future engineers-pedagogues in higher education institutions.

**References**


6. Oliynyk V. Theoretical and practical aspects of the problem of formation of
Особливості розвитку правової компетентності майбутніх інженерів-педагогів у закладі вищої освіти

Анотація. Вивчення й аналіз педагогічних надбань теоретиків і практиків вищої освіти щодо формування та розвитку правової свідомості і культури у майбутніх інженерів-педагогів дозволив визначити проблеми та зрозуміти, що підготовка майбутніх інженерів у вищому технічному закладі освіти зумовлює необхідність по-новому розуміти професіоналізм інженера, що пов’язаний з якісними змінами технічної діяльності.

У змісті статті звернено увагу на поняття «професійна компетентність майбутнього інженера-педагога» під яким розуміється інтегроване особистісне утворення, що містить професійні знання у сфері виробництва, практичні вміння й навички у вирішенні виробничих завдань, особистісні якості, що дозволяють на високому рівні виконувати професійну педагогічну діяльність.

Встановлено, що залежно від рівня відповідності вимогам законодавства правові знання класифікують таким чином: правові знання, що носять безсистемний характер; формальні правові знання; аналітичні правові знання;

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активні правові знання. А поняття «правова компетентність» - визначається як рівень правосвідомості студента та його правова активність; комплекс знань, ідей, ціннісних уявлень, що визначають вибір обґрунтованої законом поведінки людини; здатність до ефективного здійснення професійної діяльності в умовах фінансово-економічної самостійності.

Особливу увагу приділено дослідженню питання процесу формування та розвитку правової компетентності. Доведено, що в процесі отримання спеціальності інженера-педагога у студентів відбувається формування базових правових компетенцій на основі наявних ключових правових компетенцій. Розвиток правової компетентності передбачає засвоєння студентом не окремих, відірваних один від одного елементів правових знань, умінь та навичок професійних і особистісних якостей, а оволодіння комплексною процедурою отримання правових знань, які повинні мати особистісно-діяльнісний характер.

Ключові слова: інженерно-педагогічна освіта, правова компетентність інженерів педагогів, навчальна дисципліна, засоби розвитку правової компетентності.

Використана література


