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Current trends in the training of vocational education specialists in road transport

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Abstract. The research is devoted to the examination of the leading trends in the training of future specialists in the road transport sector. The relevance of the study is conditioned upon the need for a rapid response of modern educational institutions to the processes of globalisation and changes in global trends in the socio-economic, educational, scientific, information and other sectors. As one of the most influential sectors in the economy of each country, the road transport infrastructure requires high-quality training of competitive specialists and a constant search for ways to improve its efficiency. The purpose of the research is to explore, identify and substantiate several trends which affect the quality of specialist training or contribute to its improvement in line with the requirements of the times. The research analyses the relevant scientific literature and uses scientific methods of systematisation, comparative and structural analysis, generalisation, and specification. The research outlines the current trends in the professional training of road transport education specialists. The author summarises the main trends in the industry as an integral part of education in a multi-level system designed to provide the necessary theoretical and practical experience for future specialists with a focus on the most complete professional self-determination. The significance of the competence-based and practice-oriented approaches as the most important in the process of training a specialist is specified. The factors that influence the quality of training of competitive employees in the road transport sector, who will have the opportunity for decent employment and professional growth, are identified. It is concluded that the improvement of training of future specialists in the road transport industry in recent years is designed to integrate into the international educational space, to improve the quality of training in the production, economic, educational and scientific spheres. It is emphasised that high-quality training at all levels can be effective if all participants in the process are active. The practical significance of the research is the possibility of using the results obtained in planning new programmes for the training of future specialists in technical educational institutions, in organising the process of internships during training and advanced training of industry specialists

Keywords: motor transport industry; technical education; higher education pedagogy; integration and globalisation of education; teaching technologies; professional development; competence approach

INTRODUCTION

Obtaining the status of a candidate for membership in the European Union means creating conditions for the education and training of future competitive specialists, including those in the field of road transport. The relevance of the research is determined by the scale of problems in the industrial and scientific spheres, which, in turn, requires the necessary level of quality training of specialists who will be able to ensure the functioning of the industry soon. The state of higher education in Ukraine is of great importance, coupled with a decline in society's responsibility for employing young professionals and fully realising their professional knowledge and practical skills. Other problems include the contradictions between the labour market for university graduates, on the one hand, and the requirements of road transport companies and the mismatch between the demand for specialists and the supply of specialists in society, on the other (Kulish *et al*., 2019).

High-quality training of road transport specialists will allow corresponding the requirements of society. To achieve this, it is important to have technical education institutions working in a targeted manner. Specialists are trained mainly in universities, technical schools and colleges. The flagship among them is the National Transport University of the Ministry of Education and Science of Ukraine. The problem of improving the process of training specialists through individualisation of training, which involves intensification of learning activities using modern methods and technologies, is particularly relevant. Modernising education and elevating it to the level of developed European countries as the most important link in the training of future specialists and the education of a creative, well-rounded personality is a key area (Dziurski, 2014).

The purpose of the research is to identify the main trends in the training of specialists in the road transport industry, considering the conditions of socio-economic development, globalisation, European integration, trends in education, etc.

Currently, there are few or fragmentary scientific studies by Ukrainian authors that examine the trends in the training of road transport specialists, and they do not fully cover the problems associated with the professional development of future specialists according to the challenges of modern society. Only certain issues have been explored, such as the training of road transport specialists in the context of digitalisation (Kovalchuk & Soroka, 2021), using technical means of training future specialists (Chaban *et al*., 2012), innovative approaches to training future road transport specialists (Voltrikh, 2018). Noteworthy are the studies related to the general problems of training and education of specialists in the road transport industry of Ukraine (Sydorenko, 2009), general aspects of training of modern specialists in colleges (Boichuk, 2009), etc.

V.P. Sydorenko (2009) and O.V. Voltrikh (2018), analysing the conditions for raising the level of training of engineering and technical workers to the level of developed European countries, consider the key to spreading the practice of combining vocational education with production by establishing specialised training and production bases for teaching students and fostering qualities that will allow students to develop "independence of technical thinking and form practical orientations" through modern visual aids and information technologies that can provide active learning

L. Janssens *et al.* (2022) reflected on the next level of quality assurance in higher education in European educational institutions with a focus on the sustainable development plan. The frequency analysis established that European countries accept transformational learning but not very actively. Only the UK system demonstrated high rates of approval of this type of training.

The American researchers J.J. Moye *et al.* (2020) analyse both the trends that affect education in the trucking industry and the factors that cause these trends to emerge and influence change and innovation. The authors describe the trends that will have the greatest impact on the industry and education in the next 5 years.

Researchers L. Guàrdial *et al.* (2021) pay particular attention to maintaining the quality of the educational process in the case of transition to distance learning. In particular, the researchers analyse in detail the literature on pedagogical innovations and practices involving technology. Due to the information collected and analysed in the course of the study, the IDEAS framework was developed, which encourages the establishment of a new type of higher education.

In addition, the focus of Cedefop (2019) is on the implementation of innovative pedagogy based on close cooperation between employers and educational institutions as suppliers of specialists in the field of motor vehicles. The research suggests using individual competence development plans and introducing special "training contracts" between students and organisations, which will allow for full-fledged "on-the-job training". Researchers R.M. Yasin *et al.* (2013) conducted a meta-analysis of peer-reviewed professional journals and identified the leading trends in the training of road transport specialists with a focus on global training systems and stressed the need for continuous analysis of their effectiveness.

The main trends, their continuous nature and focus on continuous improvement depend on fundamental changes in the world and society. It is necessary to consider modern trends and approaches to the organisation of the process of training specialists in the road transport industry, considering the requirements of employers, and the target benchmarks of education. The scientific originality of the research can be defined as the actualisation of the issue of the quality of higher education in the field of road transport in Ukrainian higher education institutions in the context of Ukraine's preparation for accession to the European Union.

MATERIALS AND METHODS

The research uses a combination of theoretical methods: research and analysis of scientific literature, methods of systematisation, comparative and structural analysis, generalisation, and specification. The methodological and informational foundation of the research was based on theoret-

ical works by Polish, Czech, American, Ukrainian scholars and authors from Asian countries. The research was based on works on higher education pedagogy, economics and development of the road transport industry, professional training, and education in the transport sector, in particular in higher education institutions and technical schools, etc.

As a result of the theoretical study of literature, using the method of analysis, the research defines the content of the concept of "professional training of a specialist", and the requirements for training as a system of actions, which should result in the quality management of the process of mastering the necessary knowledge, skills and gaining practical experience of future specialists in a particular area of the motor transport profile.

As a result of the research of scientific literature, the main tendencies characteristic of the process of training specialists are described, the interrelations between the socio-economic development of the country, the development of education and science and the specifics of functioning of production enterprises of the motor transport industry are determined using structural analysis, on which requirements, from the standpoint of employers, the orientation of student training depends.

The research uses the comparison method to identify the positive and adverse aspects of some methods of organising retraining, including Ukrainian and foreign training technologies, full-time and distance learning, etc. Using the method of specification, the research defines the role of innovations in the road transport sector, which provoke changes in the requirements for theoretical knowledge, skills in working with modern equipment and personal qualities of a future employee, and the requirements of employers for future employees.

Using the method of information synthesis, the ways to improve the professional training of specialists (change of purposes, reorientation and establishment of a full-fledged educational environment, modernisation of processes) are outlined. The method of specification is used to determine approaches to the training process as a holistic pedagogical phenomenon, considering the trends of the time. In addition, the same method was used to identify the requirements for students as future professionals and the requirements for education professionals (new teaching purposes, "teaching to learn", classical teaching skills combined with deep practical experience, mastering the knowledge and skills of an organiser and technologist of the educational process, high moral qualities). As a result of using the method of structural analysis, the trends in specialist training are presented both in a broad sense and the factors that influence their emergence due to changes are specified (in the form of a description of specific steps towards the establishment of an effective system of specialist training, the specifics of their application, the feasibility of use, adverse and positive characteristics, stages and expected results). Using the method of specification, the research clarifies the possibilities of perceiving trends and implementing modern technologies in the training of specialists in the education of motor transport profile, presents the interpretation of the research results and presents the materials of the research.

RESULTS

Development of higher education in the field of motor transport with the orientation of the Ukrainian education system towards European standards

Ukraine's inclusion in the global educational space, which means investing in education and human capital development as the highest value following the example of developed countries, recognising education in Ukraine as a priority area of socio-economic, spiritual and cultural development of society, and implementing global educational trends, makes it urgent to establish an educational paradigm and use new approaches to training, relationships and behaviour of future professionals. The globalisation of the labour market, when every high-level specialist can work anywhere in the world, requires transformations in the educational system to help students of technical specialities develop a progressive understanding of the engineering world. Education is no longer an end in itself, but a means of becoming a professional capable of working in a competitive environment.

Both the general trends in education related to globalisation and the significant potential for the positive impact of open education elements on higher education and adult learning, and the trends in the training of technical specialists are important for the automotive sector. The processes of continuity and lifelong learning, the perception of non-formal, additional vocational education and its social potential, and openness are now leading the world's education. The processes of continuity and lifelong learning, the perception of non-formal, additional vocational education and its social potential, and openness are now leading the world's education. Education of the 21st century is one of the main guidelines of national policy in connection with the transition of human civilisation to a "knowledge society", which imposes new requirements for the organisation of the educational process (Sorbonne declaration, 1998).

The processes of modernisation of higher technical education, including road transport education, are closely connected with the necessity to provide the industry with specialists, improve international competitiveness, meet human educational needs, and increase the level of professionalism and personal responsibility of future specialists, their competence and personal effectiveness. The evolutionary nature of technical education, which corresponds to changes in the road transport industry itself, and the continuity of knowledge acquisition establish the prestige and high quality of professional education, with attention to global development trends. Improved efficiency and the introduction of internationally recognised standards and certification schemes help to develop a reliable workforce for the industry.

Nowadays, readiness for future professional activity is based on a competency-based approach, when the result of the development of professional competence of a specialist

in road transport is important, which is considered as a system of established general and professional competencies, the ability to professional self-realisation and a set of personal values (Boichuk, 2009). The professionalism and competence of the graduate, their ability to think critically and creatively, and to adapt to the conditions of professional activity will enable them to become successful in their chosen profession. The expansion of the field of activity of the future specialist and innovative changes in educational institutions require improving the quality and development of personal characteristics of the specialist to ensure competitiveness.

Currently, innovative education contributes to planning the educational process as a way of development from social knowledge and skills in their profession to technological ones, which gives the specialist an understanding of the ways and methods of solving professional problems, and skills that allow tracking the dynamics of changes in their professional activities and drawing conclusions about ways to obtain the necessary amount of new knowledge and experience (Malanyuk, 2020).

The training of road transport specialists is significantly influenced by the introduction of innovative teaching methods, which allows for maintaining the high quality of the educational process on an ongoing basis and effectively combining research and teaching in educational institutions. A noticeable trend is the displacement of conventional forms of information presentation by using multimedia technologies, for example, conducting classes using slides and other electronic means of presenting educational material. Such an organisation of knowledge acquisition can help increase motivation and self-education and provide opportunities for creativity, exchange of knowledge and experience, and acquisition of key professional skills. However, researchers O.V. Voltrikh (2018), P. Zając (2018), E. Danowska-Florczyk *et al.* (2021) emphasise that along with the positive impact, there is a threat of a significant gap between the knowledge gained and practical activities. It is possible to master the necessary professional actions only when a student performs all processes immediately under the supervision of a teacher, for example, maintenance work, installation work, etc.

The European culture of specialist training is distinguished by its sectoral and rational nature and is more monological, i.e., focused on the requirements of the industry in which specialists are needed. The system of vocational training is based on the ways of transferring knowledge and skills, perception and understanding of their content. The conventional educational process provides students with theoretical knowledge, but the connection between knowledge and specific professional activities is rather sporadic. Among the important problems in the training of road transport students are the difficulty of combining learning with practice, limited access to modern technologies and more sophisticated technical equipment, the inability to conduct experiments in real conditions, the lack of modern textbooks and relevant theoretical and practical competencies of teachers in educational institutions, which necessitates a review of their level of training and ability to organise high-quality training for future employees that would correspond to all the requirements from the employers' standpoint. In addition, there are demotivating factors in educational institutions, the main of which are uninteresting, formal teaching, biased assessments, excessive workload, a large number of unnecessary subjects and tasks, and the lack of a clear, explicit connection between the disciplines taught and future activities (L. Amhag *et al.*, 2019).

Synchronising training programmes with the challenges of the modern road transport industry

A characteristic feature of the training of specialists in the road transport industry today is its proactive nature concerning rapid changes and improvement of production processes. Due to the development of a technologically new environment for transport companies, skilled professionals need to have modern engineering and technical knowledge and advanced production technologies, an understanding of effective ways to develop the transport sector, and the ability to think creatively and innovate.

V.P. Sydorenko (2009), thoroughly exploring the professional training of road transport industry specialists, identified several steps in this way, among which the author of this research considers the most important:

- compliance with the model of training industry specialists, which provides for the required level of research and teaching staff, technologists, and software developers who are experienced users of computer information systems and, thanks to their out-of-the-box thinking, are able both to transform knowledge into modern technologies and improve the automotive industry and pass it on to a generation of students;
- overcoming the excessive theoretical nature of training and strengthening its practical orientation through using innovative technologies, project-based learning, training, simulation games, mastering modern road transport technologies, and using digital tools;
- engaging the most competent specialists to develop training standards and making the most of their experience, developing modern visual aids (posters and 3D models in sections), considering the practice of global and European systems of training specialists in the road transport industry;
- -establishing corporate-type relations between road transport enterprises and vocational education institutions as an embodiment of the idea of training specialists specifically "for the customer" and the practice of combining vocational education with production (Sydorenko, 2009).

Over the past 10 years, the automotive industry has become known for its efforts to design smart cars, test electric trucks, develop unmanned technologies, introduce artificial intelligence, augmented reality, neural networks, ultra-fast device management via 5G networks, etc. Thus, due to a large number of innovations in the industry, a modern specialist in the road transport sector, in addition to theoretical knowledge and the development of the necessary personal qualities, must have the skills to handle

modern high-tech equipment (Dziurski, 2014). Innovations in materials for the transport sector, high-speed and high-performance vehicles, the growth of information systems and increased attention to transport ecology require new professions or specialisations that need to be taught by experienced professionals. It is necessary to emphasise the complexity of production processes, the need for wide-profile professions that could combine, in addition to basic professional ones, the functions of management, regulation of automation systems, finding rational solutions in non-standard situations, which could significantly improve the performance of enterprises; the impossibility of quickly integrating specialists into work processes due to insufficient practical training. The required professional level of personnel working in the road transport sector is most probably to determine its efficiency from an economic standpoint since it is the employees who will be responsible for solving several practical problems. A special role in the implementation of progressive ideas and solutions is given to representatives of the road transport elite, engineering and technical staff, management and administrative personnel who work to improve technological processes, organise research, introduce various innovations, apply highly efficient market economy trends using information tools and computer equipment.

The place of the practical component in the training of future specialists

As for the content of the future professional activity of an employee in the field of motor transport, it depends on the rapid development of modern cars, which are more than just an alloy of the latest technologies, and an example of using electronics, computer and digital devices that require appropriate conditions for repair and maintenance. As a result, young people are more interested in the process of exploring them and strive for high-quality consolidation of knowledge in practice; among teachers, the transfer of their own experience is especially valuable (Voltrikh, 2018).

Therefore, practical training plays a leading role in the professional training of road transport specialists at all stages as the main way to consolidate theoretical knowledge and develop students' skills of self-education and self-improvement, and establish a conscious desire to obtain a high-quality professional education. Motivation is important, and it depends on the availability of theoretical materials, especially in basic disciplines, and on the ability to apply the skills acquired in the workplace. In addition, education is increasingly considering the specifics of students from the new generation, who are increasingly rejecting standard education, which they consider to be of little use for the future, and focusing on their vision of themselves in life (Vinichenko, 2021).

Ukrainian researcher N. Malanyuk (2020) outlined trends and substantiated several principles that will ensure the quality training of future transport professionals. Among them, the principle of combining three components (science, learning, practice) and the special role of active work, which is ensured by the organisation of a creative educational environment in an educational institution, should be highlighted. The principle of "education for the future" should be emphasised, which means that the competencies developed in a future specialist should be in line with the changes occurring in various spheres of human life and society in general.

The knowledge and skills of employees must correspond to the expectations of employers. These expectations include strong theoretical knowledge of the design and operation of vehicles, including hybrid and electric vehicles, knowledge of electronics, repair and maintenance skills, analytical thinking and cause-and-effect relationships, the desire to independently acquire knowledge from various sources, and a desire to improve and learn throughout life. Among the requirements put forward by employers are personal skills, namely: a culture of communication and negotiation, the ability to resolve claims and conflict situations, teamwork, and an interest and passion for automotive technology. Employers expect employees to have skills in working with computer programmes such as Audatex, SilverDAT, AutoData, etc. The functioning of modern enterprises and production systems in the context of economic instability, and dynamic social and technological processes leads to rapid updates of market needs and corresponding requirements for the training system, which are not responded to by the authors of programmes and curricula. Thus, the system of training specialists is conducted inertially (Raczkowski *et al.*, 2019). There is a need to consider the different interests of job providers, educational institutions and students themselves. Frequently, these interests do not coincide, but ignoring ways to resolve them leads to a decrease in employment. In this regard, the structure of interaction between stakeholders in the educational process is being transformed to address the needs that change over time. The work of educational institutions includes: identifying the stages of interaction between subjects in their mandatory coordination with changes in the labour market; organising ongoing cooperation and partnership at the student-enterprise level; focusing on individual training of each specialist, considering their capabilities and self-determination in a particular area of professional activity.

An important factor in the development of a specialist in the 21st century is that a graduate's profession will not mean that they will be completely successful. Specialists who can master supra-professional skills that are required in many professions will be most competitive (Phoong *et al.*, 2019). These skills include systemic thinking, intercultural communication skills, using a creative approach to solving problems, skills in the rational use of resources in production, knowledge of the specifics of working with artificial intelligence systems, etc. Mastery of these skills will increase the effectiveness of professional activities in their field and attract them to other areas while maintaining their relevance.

DISCUSSION

Due to the need to change the structure of professional activities of road transport specialists, it is difficult to imagine

the educational process designed to help develop the professional competencies of future specialists without the constant search for and use of innovative and more efficient technologies. In addition, dynamic changes in the labour market do not allow for an accurate prediction of the components of professional qualifications of future specialists, which leads to the perception of the functions of specialists as a more universal category. In the new environment, the key is the preparedness of a specialist for the profession, rather than the purposes of teaching them to think or "teaching them to learn". Employers do not care about the reasons why a candidate does not match a vacancy, therefore, the education system in the road transport industry must meet the demands of the times.

According to the results of the analysis of scientific publications, it can be argued that the main areas of training of road transport specialists today, depending on the rapid development of the industry and qualitative changes in education, are the focus on practical activities in the educational process and the competence approach. Focusing on the competency-based approach, it is necessary to overcome the contradiction between the quality of knowledge acquisition in various disciplines and modules and their remoteness from systematic use in professional activities. Some "knowledge puzzles" reduce the interest of young people in their professional activities. Such contradictions can be overcome by strengthening the links between the disciplines examined, and by developing problematic professional situations for students to solve on their own, giving lectures with the latest and most relevant information, by offering students new subjects for research and project work that requires the integrated use of knowledge in real-time (Reichert, 2019). The adaptation of training programmes should be as close as possible to each training area.

The competence approach remains relevant. This conclusion is reached by a contemporary researcher N. Malanyuk (2020), who, describing the components of the educational process, work programmes and curricula for individual disciplines, points to the need to develop the necessary components of competencies according to the standards, in particular through the establishment of appropriate professional programmes for each degree. In this process, the most important thing is effective teaching and methodological support as a condition for a quality educational process.

It is important in the training of automotive professionals to keep manuals up-to-date, providing information on the systems of specific models and the structure of cars, engines and devices used in modern car services in Ukraine. Due to such manuals, students can examine in detail the structure of all the cars that have been produced in recent years in the course of their theoretical studies, as it is almost always impossible to work with them in practice. By working with the updated manuals, graduates will be able to gain a sufficient level of technical knowledge and keep up with experienced employees.

The role of quality teaching and learning support is emphasised by V.P. Holovenkin (2019). He draws attention primarily to the systematic nature of changes and the mandatory consideration of all components of educational activities and their mutual influence and emphasises the scientific approach and mandatory practical implementation of professional training.

Polish researchers (Kukacka & Kristoufek, 2020; Symela, 2021) describe the specifics of improving the level of training of future mechanics and the need to bridge the gap between theoretical and practical training. In solving the problem, researchers prefer to conduct both theoretical and practical classes and to distribute the training time evenly.

To solve the problem of the gap between theoretical knowledge and its practical use, researcher V.P. Sydorenko (2009) in his research proposes to involve manufacturers, educators and scientists in establishing a base for retraining and advanced training, namely specialised training and production centres to combine the training process of specialists with the process of car maintenance.

In addition, the Polish researcher P. Zając (2018) focuses on this issue and argues that cooperation with automotive industry organisations will bring education closer to real working conditions and help students gain practical experience. The system of educational technologies plays an equally important role in this process. In addition, they include participation in the design of programmes for the development of educational institutions and the substantiation and development of vocational training technologies.

Nowadays, students entering educational institutions, including those in the field of road transport, belong to the "gadget generation", perceive the world from screens and are accustomed to clip information and data visualisation, thus, to improve the quality of education, education professionals must be able to build their own training courses, workshops, practical classes, providing accessible content and online tests (Clement, 2019).

By acquiring the skills of online interaction, visualisation, interactive dialogue, and automation of knowledge control, a specialist actively improves professionally, and deepens pedagogical and information competencies. The most relevant resources for learning and work are Microsoft, Google, Dropbox, Moodle, and Youtube, whose capabilities allow implementing of learning activities in real-time. Thus, openness of education as one of the main trends can be implemented through the availability of educational materials hosted on data storage platforms such as Google or Dropbox. It allows students to access learning materials at any time when they are away from the classroom. Video hosting sites such as Youtube have a significant potential for self-education, as these platforms publish educational and popular science videos from a wide variety of fields of science and technology. Watching videos on such resources allows the student to significantly deepen the knowledge gained in theoretical and practical classes, and the student can choose the area of study that interests them independently. Frequently, video materials are posted by specialists from different countries who have extensive

experience, which helps to significantly reduce the time spent searching for the necessary information.

O.V. Voltrikh (2018) provides examples of the effective use of self-made banners and emphasises the need to constantly update posters for all subjects of the curriculum. All visuals should be modern, made with attention to detail and easy to understand. For example, using dissection stands and moving stands helps students learn about a car to observe and examine the engine or any other device from the inside. In this case, real visibility is more effective than multimedia technologies.

Of even greater importance is the student's interest based on the study of modern technologies, technical approaches, design and scientific ideas that can be implemented in the design and improvement of modern cars. Equally important is the training of those specialists who have already received their education through the organisation of advanced training.

Nowadays, professional development is conducted under additional educational programmes of the retraining system in licensed institutions. Depending on the personal attitudes and goals of specialists: to renew skills, and knowledge, adapt to new conditions at work or use training for career growth - in each of these conditions, educational institutions that provide professional development should offer specialists various group or individual training programmes. This process can occur in such forms as vocational courses, targeted courses, internships to gain practical experience, etc.

The retraining programmes may include courses on diagnostics and repair of modern car systems using software and equipment from modern companies such as Bosh, comfort systems, airbags and climate control systems, diesel engine power systems, brake systems, etc. A series of lectures and seminars are held to prepare for certification and subsequent training under the Bosh Academy programmes (Polish Alternative Fuels Association, 2021).

Unfortunately, it is not always possible for specialists to travel to another city or to another educational institution to improve their skills for several different reasons, including the fact that they are frequently overworked in their job roles, which does not allow them to leave their workplace for a long time.

Therefore, an important trend is using distance learning, the main features of which are flexibility, modularity, use of specialised technologies and learning tools, reliance on modern means of transmitting educational information, parallelism, dialogicity, continuity, accessibility, and fixity. Due to its flexibility, the trainee can organise the training in the required time rhythm, which is convenient for mastering the material (Polish Alternative Fuels Association, 2021; Salandanan *et al.*, 2021). Modularity allows establishing a holistic overview of a particular subject area through each course, which allows establishing curricula that meet individual and group needs from a set of independent module courses. Parallelism means that training can be conducted simultaneously with the main professional activity of a specialist, i.e. on the job. Dialogic is manifested in the feedback between the teacher and the learner, and continuity in the ability to receive training without forced interruption in time. The entire learning process is accessible to each participant with the possibility of recording the results on tangible media in digital form (Reed, 2018; Vojtov *et al.*, 2019; European Business Association, 2020).

The advantages of distance learning that contribute to the choice of this method of professional development include the ability to use modern technologies and access to electronic libraries, which is a favourable condition for the real establishment of a single educational environment when there is a need to provide knowledge and transfer experience to a large number of specialists at the same time, considering individual learning pace, time-saving factors and learning costs (Price *et al.*, 2019; Benz & Bringmann, 2021; Turienzo *et al.*, 2022).

The labour market is not keeping pace with the changing demands of business, and this will not produce enough new talent. It is up to each company to address potential challenges when developing strategic employment plans, including skills mapping and advanced supply and demand models (Reed, 2018). The conclusions from these studies will facilitate activities to upgrade and change the skills of current workers on a large scale. If these efforts are to succeed, companies must develop new recruitment and HR strategies that will help them retain the most talented people who can successfully adapt to change in a competitive marketplace. Developing creativity in solving the current problems of Ukraine's road transport system will help achieve the desired results in less time and with fewer resources. To ensure a high level of adaptation of employees to the workplace, higher education institutions should ensure that they introduce various forms of training that would develop theoretical and practical skills.

CONCLUSIONS

The level of professional competence of vocational education specialists in road transport is one of the key factors that determine the quality of training of future specialists. Their competence is determined by their professional skills, and personal and supra-professional qualities. Continuing professional development, including distance learning, allows for regular improvement of professional knowledge and practical skills.

As the situation in the road transport industry becomes more complicated due to difficulties and lagging behind European standards, and with the necessity for educational institutions to respond dynamically to changes in the automotive industry, restructure learning processes and adapt them to changes in the labour market, random decisions cannot be considered instead of innovations in the training of road transport education specialists, as such changes must be deliberate and planned.

Due to the processes of globalisation and European integration, the rapid increase in the amount of information and the rapid development of information technology, and the rapid updating of technologies, special education specialists can successfully transfer their own experience in

the educational process only if they have developed both theoretical knowledge and practical skills, and value orientations, social mobility, creativity, flexibility and adaptation to change. Therefore, among the trends in training, the key ones were the need to replace the theoretically oriented educational process with a practice-oriented one, and using modern technologies, and organising high-quality professional development, including distance learning. Such conditions will respond to the immediate and future needs of future specialists in the field of research.

Compliance with the requirements of the motor transport sector operating in modern conditions and the focus of the educational process is the most decisive factors that are expected to produce the most effective results in improving the quality of vocational education.

Such a system of building the process of training specialists in road transport education is possible only with the active cooperation of all stakeholders: teachers, students and employers. The examined trends and interest in new technologies and forms of work allow for high-quality training of specialists according to state educational standards and programmes. In further research, it will be advisable to identify ways to prevent and overcome contradictions in the training of future road transport specialists, the requirements of society and the needs of the industry as an important component of the economic development of the state. In addition, it is promising to explore the specific features of combining conventional and innovative approaches in the training of technical specialists, in particular in the road transport industry.

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CONFLICT OF INTEREST

None.

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Сучасні тенденції щодо підготовки фахівців професійної освіти автотранспортного профілю

Анотація. Статтю присвячено вивченню провідних тенденцій підготовки майбутніх фахівців автотранспортної сфери. Актуальність дослідження зумовлено необхідністю швидкого реагування сучасних освітніх закладів на процеси глобалізації та зміни світових тенденцій в соціально-економічний, освітній, науковій, інформаційній та інших галузях. Автотранспортна інфраструктура як одна з найбільш впливових в економіці кожної країни потребує якісної підготовки конкурентоздатних фахівців та постійного пошуку шляхів підвищення своєї ефективності. Мета статті полягає у вивченні, виокремленні та обґрунтуванні низки тенденцій, що впливають на якість підготовки фахівця або сприяють її покращенню відповідно до вимог часу. У процесі дослідження проаналізовано відповідну наукову літературу та використано наукові методи систематизації, порівняльного та структурного аналізу, узагальнення, конкретизації. У статті окреслено сучасні напрями у професійній підготовці фахівців освіти автотранспортного профілю. Узагальнено основні тенденції в галузі як складової частини освіти за ступеневою системою, що спрямована на оволодіння необхідним теоретичним та практичним досвідом майбутнього спеціаліста з орієнтацією на максимально повноцінне професійне самовизначення. Конкретизовано значення компетентісного та практикоорієнтованого підходів як найбільш важливих у процесі навчання фахівця. З'ясовано фактори, що впливають на якість підготовки конкурентоздатних працівників автотранспортної сфери, які матимуть можливість гідного працевлаштування та професійного росту. Зроблено висновки про те, що покращення підготовки майбутніх спеціалістів автотранспортної галузі в останні роки націлене на інтеграцію в міжнародний освітній простір, на підвищення якості підготовки спеціалістів у виробничій, економічній, освітянській та науковій сферах. Наголошено, що якісна підготовка на всіх рівнях може бути ефективною за активної роботи зі сторони всіх учасників процесу. Практичне значення дослідження полягає в можливості використати отримані результати в плануванні нових програм для навчання майбутніх спеціалістів у закладах освіти технічного спрямування, в організації процесу проходження практики під час навчання та підвищення кваліфікації спеціалістів галузі

Ключові слова: автотранспортна промисловість; технічна освіта; педагогіка вищої школи; інтеграція та глобалізація освіти; технології навчання; підвищення кваліфікації; компетентнісний підхід