

THE DUAL MODEL OF PRACTICAL PROFESSIONAL AND PEDAGOGICAL TRAINING OF FUTURE TEACHERS FOR VOCATIONAL SCHOOLS IN GERMANY

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ABSTRACT

Aim. The aim of the research is to identify and analyse the particularities of a dual model of practical professional and educational training of future vocational school teachers in Germany; to outline the prospects for the use of advanced ideas and positive experience of such a model in the training teachers in higher pedagogical educational institutions.

Methods. The following methods have been used: interpretative - analytical method, some elements of general philosophical dialectical method (analysis, synthesis, analogy, comparing, systematisation, generalisation); empirical level methods (interview, observation); the method of theoretical generalisation.

Results. The prospects of using the positive experience of a dual model of practical professional and pedagogical training of teachers of vocational school in Germany in a similar practice of teacher training have been determined: initiation of previous practical activity in the production of the chosen speciality as a necessary prerequisite for admission to a higher education institution; introduction of pedagogical internship; cooperation of higher education institutions with enterprises, institutions and organisations.

Conclusion. A dual model of organising practical vocational training for future vocational school teachers, guarantees a high level of practical training for higher education applicants, makes balance among the educational needs of young people, labour market requirements and educational opportunities.

Originality. The structure and content of the practical training of future professional school teachers in Germany have been characterised; the features of a dual model approach to its organisation have been investigated.

Keywords: vocational school teacher, practical vocational training, occupational practice, school practice, pedagogical internship, duality, Germany

INTRODUCTION

In the countries of the European Union, a dual model of vocational education and training, so-called Dual Vocational Training System, is considered to be a specific tool for redressing the imbalance among the growing needs of young people, the labour market demands, and the potential of the educational sphere. This actualises the need to study the foreign system of dual training, in particular, the system of teachers training in Germany. After all, one of the main factors ensuring a high level of economic development in this country is vocational school teacher training that prepares a highly skilled workforce involved in the production of material goods and services to meet the needs of the population. The German teacher training system has an ideal international reputation, a long tradition of dual system training, and its educational institutions are traditionally active on the global education market (Turchyn, 2003).

LITERATURE REVIEW

The results of studying various scientific works show, that Ukrainian comparative scientists are constantly interested in problems of formation and development of pedagogical education in Germany. Different aspects of the German model of teacher training have been studied by Liudmyla Pukhovska (2009, 2011). The didactic basis of professional training of the future teachers in Federal Republic of Germany have been analysed in Natalia Kozak's scientific research (2000). Serhii Bobrakov (2012) has characterised the practical orientation of professional training teachers in Germany. Certain aspects of setting up and operation of training the teaching staff for vocational education institutions are covered in the paper by Nelli Abashkina (1998, 2002). Andriy Turchyn studied the theory of training teachers for vocational education institutions in Germany (2003); the particularities of the practical training of future teachers in Germany has been outlined in the work by the group of researches (Turchyn et al., 2022). The researches of German scientists Dieter Arndt (2002), Reinhard Bader (1998), Günter Weber (1995), Wilhelm Holfelder (1991), Horst Lutter (1999) deal with vocational pedagogical training of the future vocational teachers in the Federal Republic of Germany, and are essential for the paper under research. The results of analysis of pedagogical literary sources have shown that the problem of dual model training of vocational school teachers in Germany is not developed enough and has not been the subject of sole scientific study.

In the above-mentioned context, the aim of the paper is the following: to detect and to analyse the peculiarities of practical professional pedagogical training of the future vocational school teachers in Germany and to outline which progressive ideas from this country's experience are being used in the implementation of a dual higher pedagogical education in Ukraine.

According to the aim, the following tasks were set: to characterise the structure and the contents of practical training of the future vocational school teachers in Germany; study the peculiarities of dual approach organisation and application; to determine the peculiarities of using the positive experience of a dual model of practical professional and pedagogical training of vocational school teachers in Germany in the practice of pedagogical training in Ukraine.

RESEARCH METHODS

To solve the tasks and achieve the goals the following methods of scientific research have been used: interpretative - analytical method, on the basis of which the study of Ukrainian and foreign literature sources was conducted, as well as some elements of general philosophical dialectical method - analysis, synthesis, analogy, comparison, systematisation, generalisation; methods of empirical level (interview, observation), which allowed us to analyse the peculiarities of training the vocational school teachers in Germany and the imple-

mentation of a dual model of training in educational institutions in Ukraine; the method of theoretical generalisation, which allowed us to analyse the outgoing statements of the research as well as to make the general conclusions and estimations, and to substantiate the practical recommendations. The methodological background of the study is presented by the epistemology statements about interrelations and interdependence of the objective reality phenomena, the unity of theory and practice; the statements of synergetic philosophy about the process of development interpretation; the main methodological principles of systematic, objective, scientific, comprehensive study of phenomena and processes and comprehensive use of research methods.

RESULTS OF THE DISCUSSION

The main aim of training teachers in Germany is to develop their professionalism. Its formation during academic studies in higher education institutions is viewed as a process which can be accomplished when the unity and interpenetration of theoretical and practical training is provided. Hence, interrelation of theoretical knowledge and practical work by speciality has always been and still remains the central component in the vocational school teachers' training. The specific elements able us to solve this instructional and strategic problem, due to the dual educational programmes of vocational school teachers' training, are practical vocational education by speciality in production, school pedagogical practice and pedagogical internship (Schulz, 1990).

Training in the company, which is focused on acquiring practical knowledge, is complemented by classes at vocational training institutions. It is compulsory for all students and takes place throughout their studies. Depending on the speciality and academic year, students have between 8 and 12 hours of theory one or two days a week. It may happen, especially if there are only a few students in a particular speciality, that the vocational institution is located far from the training company. Because it is difficult for students to commute to and from school every day, studies are often organised in blocks: students can attend school for up to eight consecutive weeks. The teaching material is divided into two parts: the first is work-related theoretical knowledge relevant to the profession concerned (two-thirds of the Curriculum), and the second is general subjects such as German, Mathematics, Politics, Economics and Sociology, Foreign Languages, Religious Studies, and Physical Education (one-third of the Curriculum). In German classes, students practise effective oral and written comprehensions, which is an important prerequisite for their future work. The content of vocational education and training is determined by the relevant model of the Curricula (Rindfleisch & Maennig-Fortmann, 2015).

Teaching is organised according to so-called "fields of study": the learning material and competencies related to the profession are not taught in

blocks, but are based on real professional situations. This didactic structure helps the vocational schools to be more responsive to the individual needs of the students, which is an advantage, because it has a very large target group: former students from all types of schools in Germany. Students are regularly tested on the teaching material and their results are recorded on a report card. The transfer of the students to the next year takes place irrespective of the grades. In agreement with the educational institution, the period of study may be extended and the school year may be repeated.

Vocational practical training of the future vocational school teachers in Germany is held during three stages: industrial internship, school internship, pedagogical internship (*Referendariat*).

PRACTICAL PROFESSIONAL TRAINING IN PRODUCTION (INDUSTRIAL INTERNSHIP)

Practical professional training in production lasts 48-52 weeks. The importance of such training should be emphasised, as at least three-months' industrial internship is the necessary condition for entering most higher education institutions, the rest have to be completed during academic studies before taking the First State Exam.

The first stage of vocational industrial training aims to get the students acquainted with the realities of the labour world and help them realise the conditions of their students' professional life. Its main task is to form the empiric foundation for the university studies. However, this practical activity can be substituted by completed vocational education or two-year practice, preceding the studying at special higher education institutions. Vocational training is often considered to be the better variant, than practical work at industry or internship.

The practice of functioning of vocational school teachers training system in Germany brings to the necessity either of usage the applicant's preliminary training at industry or the availability of diploma about completion of vocational education as a necessary condition for entering industrial-pedagogical, engineering-pedagogical faculties of higher education institutions or higher engineering-pedagogical education institutions. After all, the secondary school-leavers who have no idea about the difficulties and variety of work by the chosen speciality and, surely, no practical experience, become full-time students. Vocational education at the workplace (at an enterprise, institution or organisation) also allows acquiring certain skills and knowledge of a future speciality directly at the workplace.

The dual approach has thus become a unique "made in Germany" product that provides for parallel training at the vocational school and at the workplace. Up to 70 % of the student's practical training takes place in a real production environment. The proportion of theoretical work is approximately 30 % (Rindfleisch & Maennig-Fortmann, 2015).

SCHOOL INTERNSHIP

School internship is integrated into the educational process of higher education institutions. Universities independently determine the procedure, components and duration of pedagogical internship (Arndt, 2002, p. 209; Turchyn, 2003, p. 264-268). Higher education establishments launch specialised institutions responsible for organising and conducting the internship. They work closely with schools, which are authorised by the Ministry of Culture and Education to admit students for their practical vocational training, conduct special training events aimed to prepare, analyse and evaluate school internship.

The main purpose and task of school internship for the period of study at a higher education institution is to introduce students to the realities of teaching activities at school and to the practice of teaching speciality and an additional general subject. Each student or group of students is supervised by an experienced Methodist (mentor) teacher for the internship period. After a passive observation of the teacher's activities, the trainee is obliged to plan his or her own lessons and conduct his/her first test lessons. The mentor advises students during observation and preparation, conduction, and evaluation of their own test lessons.

Pedagogical internship at school has another important task – its results should confirm or deny the correctness of the profession chosen by the student and his professional suitability, that is, serves as career guidance. It also emphasises the importance of pedagogical internship in higher education institutions, and is therefore an integral part of pedagogical education programmes.

Practical vocational training during university studies is provided in two forms: a) preparation for practical work in a vocational school with a pedagogical basis; b) preparation for practical work in a vocational school with a basic element of speciality didactics and additional general subject.

Each student must undergo the following types of school pedagogical internship: a) orientation pedagogical block internship; b) block internship in didactics of an additional subject; c) teaching and support internship in didactics of the main speciality (Bayerisches Lehrerbildungsgesetz, 1995). Students (no more than three in one class) take both block internships in their free time. The best period is March and April or September and October. On average, each unit consists of a fifteen-day continuous cycle with a minimum workload of 50 academic hours.

THE ORIENTATION PEDAGOGICAL BLOCK INTERNSHIP (REFERENDARIAT)

The orientation pedagogical block internship must be taken at the public vocational school of the dual system or at the vocational school not earlier than in the second and not later than in the fourth semester. During

internship, students observe the way vocational school students' study and their social behaviour in the classroom, the teacher's style of instruction, the organisation of lessons, the pedagogical influence of the teacher on the students, study the problematic issues related to education and upbringing in vocational school, discuss and assess them with participation of a competent teacher.

For the period of school pedagogical block internship for each student, the headmaster appoints a teacher who performs the internship coordinator function, helps the trainees to complete the tasks and achieve the set goals, and attends lessons as a listener, if possible.

Block internship in didactics of an additional subject is the next type of pedagogical training, and for this reason the students take it at the public vocational school, in particular in the one that provides secondary specialised education or the right to enter the higher education institution. Students who pursue an additional specialty instead of the second subject take the internship at a public vocational school or vocational school.

During the block internship in didactics of an additional subject, students study specific professional tasks and objectives of the respective curriculum, observe the methods and techniques used by the teacher at the lessons to achieve the learning objectives, the application of technical equipment and methods and techniques of testing, analyse the specific professional difficulties encountered in the students in the learning process, improve their knowledge about the educational impact of teaching in the chosen subject. In the period of block internship in didactics of an additional subject, every student also has a mentor whose lesson he can attend and later helps the intern to prepare and teach his own lessons.

Teaching and support internship in didactics of the main speciality logically completes the practical vocational training during studying at higher education institution. It is also carried out in a public vocational school, and in the speciality "professional pedagogy" – in vocational academies, vocational schools or advanced specialised schools. Within this internship, students (up to six people) attend a vocational school once a week for one semester. Academic load reaches at least four hours. This internship is naturally linked to the teaching of professional didactics in a higher education institution, so that theory and practice complement and improve one another.

For taking such internship the following organisational forms are proposed: a) presence of students at the lesson taught by associate professor or the teacher of professional didactics in the class where candidate for teacher's position is doing internship; b) observation of the lesson of professional didactics teacher by students. This lesson from the relevant speciality is prepared by the teacher in higher education institution and, with the consent of the headmaster and counsellor teacher, tests and demonstrates it in the classroom.

Vocational school teacher training is considered to be completed only if the pedagogical internship is successfully completed, which is the second

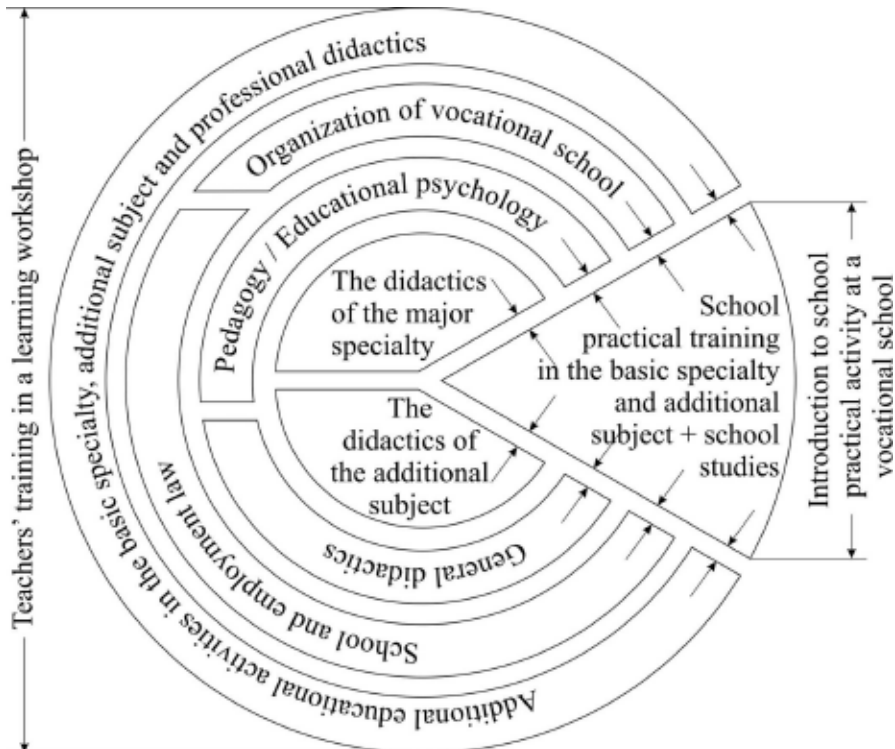
stage of training teachers in Germany. All graduates of higher education institutions who have passed the First State Exam for the post of Vocational School Teacher or the diploma of commercial school teacher or equivalent examination are eligible for admission.

The task of the second phase of vocational school teacher training is to form school pedagogical activity competence on the basis of academic education. As it can be formed in the active communication, analysis and solving of certain situations to which specific requirements are put, vocational schools of various types are integrated into the second stage of education, in which young educators systematically participate in a self-organised learning process.

The general concept of vocational school teacher training on the second stage of studying can also be presented as a model (Figure 1)

Figure 1.

Concept of vocational school teachers' training at the second stage of studying



Source: Turchyn, 2010, p.148.

As we can see from Figure 1, the didactics of the major speciality and the additional general subject is at the centre of the educational proposal of the seminar. The didactic theory is detailed and differentiated, that is, the

developed educational activities are optimised with their possible further implementation.

Studying of general didactics is of great importance. It is commonly accepted knowledge intensively combined with referendarys' teaching experience and becomes useful for efficient and skilful educational activity.

The course of pedagogy and educational psychology is based on in-depth practical teaching experience of trainees. It is intended to help to accept, form, and implement situational determined options of activities.

The purpose of the subject "organisation of vocational school" is to acquaint the beginner teachers with the system of functioning of the institution as a true carrier of education in society. Since the vocational schools are distinguished by diversity and variety of their types, the subject matter is important for the training of vocational school teachers when studying this subject.

In order to ensure constant relations between theoretical work at the seminar and school internship, practical activity of referendary at school forms the basis of all seminar training activities.

During the introductory stage the academic workload of the trainee is 10 hours per week. The candidate for the teacher's post on the basis of attending classes of the experienced mentor teacher (on the reflective observations background) has as quickly as possible (up to 4 weeks) get to the supervised training lesson in main speciality and additional subject that has to correspond to the classes in the teacher's schedule. Consequently, the trainee with no difficulty gains the teaching experience, as the presence of the mentor teacher ensures correction of mistakes and elimination of the drawbacks that may occur at the trial lesson.

During the differentiation stage, the academic workload increases to 12 hours per week; the trainee independently holds from 4 to 8 lessons, and the remaining time is used to attending teacher's classes.

At the end of the first year of pedagogical internship, a general meeting is held under the chairmanship of the seminar leader. It is attended by masters, specialists-didactics in both subjects, the director of the vocational school. They are obliged to take the decision on the level of training of the *Referendariat*, his/her suitability or unsuitability for holding independent lessons in the speciality and additional subject. There are two options: in the first case, admission to the second year of study is followed, and in the second case, a six-month extension of the first period and re-certification of the beginner teacher.

With the beginning of the second period, this covers the intensive and preparatory stages, the workload increases to 12-14 hours per week. During the intensive stage, the referendary independently holds 8-10 lessons and spends four hours at supervision classes or attending teacher's lessons. Accordingly, the training time in the seminar is reduced from the previous 12-13 to 6 hours per week. The total weekly workload of an intern is identical to the workload of a full-time teacher in a vocational school and is 20 hours per week.

At the end of the intensive stage, the master or manager in the speciality responsible for training referendary makes a response report or review about the trainee's level. At the same time, the school headmaster and mentors submit their assessments. The results of the experts are summarised and the final evaluation is output. If there is a difference of assessment of the candidate for the post of vocational school teacher success, the seminar leader makes final decision and informs his/her referendary.

At the final preparatory stage, the workload of the referendary is reduced to 4 hours per week. The trainee attends the teacher's lessons or holds classes on his own. Training events in the seminar do not take place any more. This period is set intended for taking the Second State, so-called, pedagogical exam. When doing the Second State Exam, the referendary has to prove that he/she attained the goal of pedagogical internship and has sufficient training to become a vocational school teacher. The exam is held within the time limits set by the regional government by the suggestion of the seminar leader: from March 1 to April 30, or from September 1 to September 30 of the current year.

The pedagogical exam contains the following tasks:

- Written assignment based on the educational activity of the referendary. The subject to choose from is offered by a speciality mentor at the end of the first year of study, but no later than three weeks before taking the exam.
- Holding four examination lessons in the main speciality (2 lessons) and an additional subject (2 lessons), but at different types of vocational school. Due to the referendary's wish these classes, can be conducted at different time intervals, but not less than four weeks.
- Interview that lasts no longer than 60 minutes and includes one oral examination in: a) pedagogy / educational psychology; b) didactics and techniques of the main specialty and additional subject; c) school, service, youth and parental law and school (Bader, 1995).

According to individual exam results, the total mark is given. Pedagogical exam is considered to be passed if each exam result is rated at least "sufficient". Referendary, who passed the Second State Exam in time, successfully completes the pedagogical internship. The criterion for taking the decision whether to employ him/her to school service in each subject of the federation is the State Examination for the post of teacher, the exam score of which is made from the average number of results of the First and Second state examinations, moreover the scientific exam has a single coefficient, and a pedagogical has triple coefficient.

The practical pedagogical training of teaching staff for German vocational schools has also got its weak points. The main disadvantage of the second stage of studying is its autonomy and separation from the university, that makes a gap between theoretical and practical training; and subordination of pedagogical internships to the local regional government, in

fact, eliminates the possibility of higher education institutions monitoring this stage of teacher training, depriving them of this scientific adjustment.

The other drawbacks are the lack of sufficient contact with teachers as one of the essential prerequisites for obtaining specific ideas about the work, difficulties and problems of teachers; insufficient focus of practice on its main function: to apply theoretical knowledge in situations of school reality; unavailability of management training and internship affiliations (Flach et al., 1995).

In this regard, in order to improve the organisation and effectiveness of internship, in our opinion, it is necessary to choose associate professors and mentors, train mentors before the internship start, hold preliminary discussions of the sessions, give more time and to provide specific assistance from associate professors and methods teachers in the course of internship, create student societies for sharing experience, organise joint students, mentors and associate professors discussions when assessing the internship in the institutions it has been taken.

The experience of organising professional teachers' training for vocational schools during the second stage seems to be useful for improving the system of teacher education in European countries.

A dual mode of education is already stipulated by our Ukrainian legislation: the Law of Ukraine On Education, the Law On Higher Education as amended from January 16, 2020 The Concept of Training of Specialists in the Dual Form of Education (Ministerstvo osvity ta nauky Ukrainy, 2018). In addition, the Ministry of Education and Science of Ukraine as part of the implementation of the Action Plan for the implementation of the Concept of training specialists in the dual form of education, proposed for public discussion a draft of the Regulations of the dual form of higher and flexible mobile education and standard contract for the acquisition of higher and flexible mobile education in a dual form. The real milestones for the implementation of the reform were the introduction of a pilot project in educational institutions of vocational and higher education for the training of graduates in the dual form of education and an annual analytical report for 2019-2023. These changes in the educational paradigm make it possible to provide the market with specialists not only with grounded theoretical knowledge, but also with practical skills.

According to the proposed Regulation, the educational institution decides on the implementation of a dual mode of education (DME), taking into account the needs of the labour market, determines the list of educational programmes in which training in this form is appropriate, and concludes bilateral agreements with employers on cooperation in the organisation of a dual mode of education. The peculiarities of the organisation of the educational process in the dual form are reflected in the individual study plans. The institution has the right to organise dual study for specially formed groups or individual education applicants in order to ensure their individual educational trajectory. The teaching load is distributed between

training in the educational institution and in the workplace, depending on the specifics of the educational programme. Different models are used to organise education in a dual form: integrated model – split week model (several days during the week in an educational institution, another part of the week in the workplace); block model - training in an educational institution and in the workplace in blocks (two weeks, month, semester); partial model - part of training in the workplace is covered by training in the practical training centres, etc. A dual vocational qualification is assessed according to the educational programme. The topic of the graduation qualification paper is agreed upon with the employer. Representatives of the employer can be included in the examination board of the educational institution (Ministerstvo osvity ta nauky Ukrainy, 2022).

It must be noted, that a number of educational programmes provide a dual mode of education in Volodymyr Hnatiuk Ternopil National Pedagogical University (Ukraine).

Table 1.

The data of the Educational and Methodological Department on the number of students studying in a dual mode of study as of June 02, 2022.

| <i>Faculty</i> | <i>Master's Degree</i> | <i>Bachelor's Degree</i> |
|--------------------------|------------------------|--------------------------|
| Foreign Languages | 4 | 11 |
| Pedagogy and Psychology | 8 | 13 |
| Physics and Mathematics | 5 | 9 |
| Labour | 4 | 5 |
| Chemistry and Biology | 11 | 3 |
| Philology and Journalism | 7 | 10 |
| Arts | - | 1 |
| History | 3 | - |
| Physical Education | - | 3 |
| Geography | 3 | - |
| <i>University total</i> | <i>45</i> | <i>55</i> |
| | <i>100</i> | |

Source: Educational and Methodological Department of TNPU

In order to organise and implement the learning process the Provision on Training Specialists with a Dual Mode of Education has been developed and approved by the Academic Council of the University, Protocol No 9 dated February 25, 2020, enacted by the Order of the Rector no 60-p dated February 25, 2020. It stipulates that the dual form of higher education is a way of obtaining an education by full-time students, providing training at the workplace in enterprises, institutions, and organisations for acquiring certain qualifications in the amount from 25 to 60 % of the total volume of the educational programme on the basis of a contract. Dual mode of education is carried out on the basis of an agreement between Ternopil Volody-

myr Hnatiuk National Pedagogical University (TNPU), a higher education applicant, and an employer (enterprise, institution, organisation, etc.) that provides: the procedure of higher education applicant's employment and payment for his/her work; volume and expected results of higher education applicant's training at the workplace; the obligations of the higher education institution and the employer regarding the implementation of the student's individual study plan at the workplace; the assessment procedure for the learning outcomes obtained at the workplace (TNPU, 2020).

Dual education programme (DEP) is developed by the relevant (profile) faculty (graduate department) and agreed with the enterprise. The programme envisages: mastering of general and professional competences in speciality by higher education applicants in accordance with educational programme and its components; acquisition of practical experience by higher education applicants taking into account the content of training programme; combination of practical experience at the enterprise and training at the university. The Dual education programme should be tailored to the needs of the particular workplace and take into account the particularities of the job. The records of Dual education student's results are carried out in accordance with current regulations and involves two main documents: the diary-report of the dual mode of education and the record of the final control.

For organising and conducting a dual study, Ternopil Volodymyr Hnatiuk National Pedagogical University (Ukraine): ensures the implementation of a DME programme in accordance with the educational programme and the State Educational Standard; is responsible for the quality of training of higher education applicants; concludes a trilateral dual study agreement with the enterprise and the higher education applicant; jointly with the enterprise develops and approves the study programme and terms; agrees with the enterprise the personal composition of higher education applicants; issues orders for the organisation of the DME programme.

The employers (companies) may apply to the university for the introduction of DME in the specialities they are interested in. To organise and carry out such a form of education, the company: concludes a tripartite agreement with TNPU higher education students and jointly with the university develops and approves the DME program, the terms of training, action plan to ensure the educational process and ensures the implementation of the program; approves with the university the personal composition of higher education students who are sent to study; admits higher education students to study in the number of terms agreed with the university; Provide training for higher education students in the rules of internal labour order, work safety and fire safety, the possibility of employment in the company, etc.; appoint a mentor for each group (person) of the most qualified professionals; ensures that the programme is implemented within the firm and enables it to be carried out; if a position is offered, can pay the salary; is involved in the assessment of a higher education student's

professional competences based on the results of the DME; conducts safety briefings with higher education students (TNPU).

There are a number of benefits to all parties involved in this form of training: universities update information on the current state of the professions, improve the quality of education by adapting curricula to employers' requirements, increase opportunities for applied research and faculty development; education applicants will be able to combine theoretical knowledge with practical experience, increase their chances of getting their first job after graduation and gain the experience; employers will have an influence on the training process in order to develop enterprise-relevant professional competences and obtain qualified personnel ready to work without additional efforts for adaptation to the workplace or retraining.

The effectiveness of DME is, in our point of view, clear, but according to the analysis reports, there is still work to be done. The organisation of group learning in DME remains mainly the exception rather than the rule. For the most part, DME is organised for individual students on an individual basis. In fact, dual education is often confused with individual education, sometimes even with distance learning. Taking all of the above into account, a number of recommendations have been formulated. The focus is on a few of them: The Ministry of Education and Science of Ukraine needs to improve the regulatory framework, considering the specifics of education in certain sectors, and encourage the development of a unified information system containing training proposals for vocational education with the possibility of searching by speciality, educational institution, company name, region, etc. The educational institutions should progressively move towards preparing dual education programmes and coordinate their content with the partner employers, in particular by jointly defining the educational components or parts of them. jointly define the educational components or their parts, those that can be covered by the enterprise and those that can be carried out only in the educational institutions, as well as the procedure for developing and approving the individual educational plans for the educational students of the DME system; conduct a broad information campaign among the students (Ministerstvo osvity ta nauky Ukrainy, 2021).

CONCLUSIONS

The dual model of vocational pedagogical training of future vocational school teachers in Germany has been proven to be effective for decades. It facilitates the modernisation of the content of education, adaptation of students to their first workplace, and thus enhances competitiveness in the labour market, as well as enables vocational schools to train qualified pedagogical staff through influencing the process of training professionals with the necessary knowledge, skills and competences, select the capable

higher education candidates for post-university employment. Higher education institutions, in turn, enhance the competitiveness of the educational services market by improving the quality of education and adapting educational programs to the requirements of employers, expanding opportunities for applied research, and raising qualification of the teaching staff. The need to train specialists with more practical experience has caused changes not only in professional but also in higher education. The FFE in Ukraine still needs to be improved at the legislative and methodological levels, but it is obvious that this form of education guarantees a high level of practical training for higher education applicants, makes balance between the educational needs of young people, labour market requirements and educational opportunities. Dual education is an alternative to higher education which opens the way to higher education gaining at the same time. In the light of this, it demonstrates the different educational opportunities in Germany and, recently, in Ukraine.

REFERENCES

- [1] Abashkina, N. V. (1998). *Rozvytok profesijnoi osvity v Nimechchyni (kinec' XIX-XX st.)* [The Development of the Vocational Training in Germany (the End of the XIX-th Century - the XX-th Century)]. [Doctoral dissertation, Instytut Pedahohiky NAPN Ukrainy]. <https://nmcpto.sumy.ua/wp-content/uploads/2017/04/%D0%90%D0%B1%D0%B0%D1%88%D0%BA%D1%96%D0%BD%D0%B0-%D0%9D.%D0%92..pdf>
- [2] Abashkina, N. V. (2002). Profesijni yakosti vchy`telya v ocinkax nimecz`ky`x doslidny`kiv XX stolittya [Professional qualities of the teacher in the estimations of the German researchers of the XX century]. *Continuing Professional Education. Theory and Practice. Scientific and Methodical Journal*, 1(5), 191-200.
- [3] Arndt, D. (2002). *Schulpraktische Studien – integrativer Bestandteil im Studiengang „Lehramt an berufsbildenden Schulen“*. Frankfurt-am-Main.
- [4] Bader, R. (1995) Lehrer/Lehrerin an beruflichen Schulen. In R. Arnold & A. Lipsmeier, *Handbuch der Berufsbildung* (pp 319-333). Wiesbaden. <https://doi.org/10.1007/978-3-322-93636-3>
- [5] Bader, R. (1998). *Grundprobleme der Lehrerausbildung für berufsbildenden Schulen*. Bochum.
- [6] Bayerisches Staatsministerium für Unterricht und Kultus. (1995, December) *Bayerisches Lehrerbildungsgesetz*. <https://www.gesetze-bayern.de/Content/Document/BayLBG/true>
- [7] Bobrakov, S. V. (2012). Reformuvannya zmistu profesijnoyi pidgotovky` vchy`teliv u VNZ Nimechchy`ny` : prakty`ko-orijentovany`j pidxid [Reforming the content of teacher training in German higher education institutions: a practice-oriented approach]. *Comparative Professional Pedagogy*, 2, 161-168.
- [8] Flach, H., Lück, J., & Preuss, R. (1995). *Lehrerausbildung im Urteil ihrer Studenten*. Lang.
- [9] Holfelder, W. (1991). *Schulgesetz für Baden-Württemberg mit Nebenbestimmungen und Sonderteil Lehrendienstrecht*. Berlin.
- [10] Kozak, N. V. (2000). *Dy`dakty`chni osnovy` profesijnoyi pidgotovky` majbutnix uchyteliv u FRN (druga polovy`na XVIII – kinec` XX st* [Didactic bases of professional training of future teachers in the German Federative Republic (the middle of the 18th – the end of the 20th centuries)] [Doctoral dissertation, Pedagogical University of Ternopil]. http://catalog.library.tnpu.edu.ua:8080/library/DocDescription?doc_id=24828
- [11] Lutter, H. (1999). *Die pädagogische Ausbildung von Berufsschullehrern im Studienseminar*. Lang.
- [12] Ministerstvo osvity ta nauky Ukrainy. (2018, January). *Kontseptsiiia pidhotovky fakhivtsiv za dualnoiu formoiu zdobuttia osvity* [The Concept of Training of Specialists in the Dual Form of Education]. <https://mon.gov.ua/storage/app/media/kolegiya-ministerstva/02/kontseptsii-dualnoi-osviti.doc>

- [13] Ministerstvo osvity ta nauky Ukrainy. (2021, September). *Analitichnyi zvit za rezultatamy druhoho roku pilotnoho proiektu v zakladakh fakhovoi peredvyshchoi ta vyshchoi osvity z pidhotovky fakhivtsiv za dualnoiu formoiu zdobuttia osvity* [Analytical report on the results of the second year of the pilot project in vocational and higher education institutions of the training of specialists in a dual form educational attainment]. <https://mon.gov.ua/storage/app/media/news/2021/12/08/Zvit.za.2.rik.Pilot.proyekt.Dual.osv.2020-2021.pdf>
- [14] Ministerstvo osvity ta nauky Ukrainy. (2022, July). *Proiekt polozhennia pro dualnu formu zdobuttia vyshchoi ta fakhovoi peredvyshchoi osvity* [Draft regulations on the dual form of higher and vocational education]. <https://mon.gov.ua/ua/news/mon-proponuye-dlya-gromadskogo-obgovorennia-proyekt-polozhennia-pro-dualnu-formu-zdobuttia-vishoyi-ta-fahovoyi-peredvishoyi-osviti>
- [15] Pukhovska, L. P. (2009). Yevropeyskyi vymir pedahohichnoi osvity: novi kompetentnosti vchyteliv [The European dimension of teacher education: new competences for teachers]. *Comparative Educational Studies*, 1, 63-70.
- [16] Pukhovska, L. P. (2011). Teoretychni zasady profesiinoho rozvytku vchyteliv: rukh do kontseptualnoi karty [Theoretical foundations of teacher professional development: a movement to a conceptual map]. *Comparative Professional Pedagogy: Scientific Journal*, 1, 97-107.
- [17] Rindfleisch, E., & Maennig-Fortmann, F. (2015, August 5). *Duale Ausbildung in Deutschland*. <https://www.kas.de/de/einzelitel/-/content/duale-ausbildung-in-deutschland1-v1>
- [18] Schulz, D. (1990). *Lehrerbildung und Lehrerschaft in der Bundesrepublik Deutschland*. Köln.
- [19] TNPU imeni Volodymyra Hnatiuka. (2020 July). *Polozhennia pro pidhotovku fakhivtsiv iz zastosuanniam dualnoi formy zdobuttia osvity v TNPU* [Regulations on the Dual Professional Education in TNPU] http://tnpu.edu.ua/about/public_inform/upload/2020/Polozhennia_pro_dualnu_formu_zdobuttia_osvity.pdf
- [20] Turchyn, A., Kashuba, O., Kravchuk, T., Navolska, H. & Derkach, H. (2022). Osoblyvosti praktychnoi pidhotovky maibutnix uchyteliv profesiinoi shkoly u Nimechchyni. [Particularities of the professional training of future school teachers in Germany]. In *Theoretical foundations of pedagogy and education* (pp. 164-172). Primedia eLaunch.
- [21] <https://isg-konf.map/theoretical-foundations-of-pedagogy-and-education-2/>
- [22] Turchyn, A. (2010). Osobly`vosti prakty`chnoyi profesijnno-pedagogichnoyi pidgotovky` majbutnix uchyteliv profesijnnoyi shkoly` v Nimechchy`ni [The features of practical vocational and educational training of future teachers of vocational schools in Germany]. *Scientific notes of the Ternopil Volodymyr Hnatiuk National Pedagogical University. Series Pedagogy*, 3, 141-150.
- [23] Turchyn, A. (2003). *Pidhotovka vchyteliv dlia zakladiv profesiinoi osvity u Nimechchyni* [Teacher training for vocational education institutions in Germany]. [PhD dissertation, Pedagogical University of Ternopil]. <http://www.disslib.org/pidhotovka-vchyteliv-dlja-zakladiv-profesijnnoyi-osvity-u-nimechchyni.html>
- [24] Weber, G. (1995). *Zweiphasige Lehrerbildung – ein deutsches Modell*. Brockmeyer.