



Dual Education in Business Law Opportunity for Cognitive Activity and Training in Interaction with Social Partners in North Macedonia

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News on the topic. The natural complication and the impermanence of the modern world determine the demand of society for persons with cognitive characteristics. Demand does not come only from society it is also a natural realization to anyone who aspires to a full life. Thus, the constant interest for cognitive values is justified, so much so that their personal aspirations and specifics are dependent on the field of defense defined profession, and thus life. The purpose of the study - theoretical support of cognition in students in the context of dual training and experimentally test their effectiveness. Facility - education and training. Subject - obtaining and strengthening the cognition of students in the context of the dual study. A methodology based on a systematic approach, activity-competence approach and self-analysis for professional competencies. Methods: theoretical-methodological analysis of literature, the study of regulatory and program documents from education and production, generalization of business experience, business modelling; comparative analysis Germany and Macedonia by defining the specific organizational-legal conditions and self-analysis of students for professional competencies. Results - aimed at enriching the theory and methodology in correlation with the training. Students to be able, to practice personal deep thinking skills while studying, because the exercise period is too short for them to achieve the concrete advancement of skills.

Keywords: dual education, students, cognition, profession, training

INTRODUCTION

The social demand for high professionalism in every service is expressed in the business administration requirements system: the ability for self-development, effective use of internal potential, flexibility, adaptability to changing conditions, ability to find non-standard solutions to management problems, creativity. At the current stage of social progress, intellectuality, information and knowledge are the carrying value and deciding factors in competition. The accumulation, progress and cognitive management of

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resources they got up most relevant for economic subjects on any scale, from the state as a whole to a small enterprise. According to modern economic theory, the new economy are not set up basis on the movement of material resources, how much on exchange and use of ideas, knowledge, information and the acquired knowledge and experience are the most valuable resources of the state. It is believed that knowledge and continuous learning are critical components in success today. Today's achievements of science and technology forced him the manufacturing sector should be in the right direction to products with significant added value, and higher competitiveness on the world market, so widely it is known that knowledge and information are among the highest values (Amrik, J., Hittig, G.G., Gál, Zs., Bárczi, J., & Zéman, Z. (2018). For, Slastenin, V.A., Isaev, I.F., & Shiyanov, N.E. (2002) "professional socialization" is the process of "entering a person into a profession and harmonizing on his interaction with the professional environment, and the person has clear ideas about the content and conditions of specific professional activities of the leading factors from which its effectiveness depends". This fact locates the need for new training forms for different sectors of the country's economy.

Literature Review

The concept of "preparation" in the explanatory dictionary is interpreted as a stock of knowledge's acquired in the learning process while in Encyclopaedia of Vocational Education, this term has two meanings: first, as learning - forming readiness to commit tasks upcoming; second, as readiness - the presence of competence for the execution of the assigned tasks, while " Professional training" is complex of special knowledge, skills and abilities, professional and personal qualities, professional experience and standards for professional behavior which enable implementation of productive activities in a given professional field. Analyzing them vocabulary definitions, we can say that vocational training – understand a certain set of special knowledge, abilities, skills and personal qualities which allow execution work in a specific area of professional activity (Great Soviet Encyclopedia (1999), Pedagogical encyclopedic dictionary (2002), Pedagogical terminological dictionary, and Russian Pedagogical Encyclopedia (1999).

Roma, M. V. & Roma, T. A. (2010) uses the term "Professional" in relation to the characteristic elements of the tasks of a person's development because he becomes a professional, i.e. by achieving professionalism as a realized ability of one person to communicate in the world of the profession, taking into account the norms and requirements of this professional world, at the same time realizing subjectivity in professional self-determination. The main importance already is not muscular strength and not energy, just information. OECD (2010), notices that youth unemployment in the states who are with the dual vocational education system is much low from EU average indicators (20%), and Germany with 7%, so we resonate - dual vocational education and training what are correlated with the requirements in the labor market promotes it employment, especially among young people. This perception aroused political interest towards dual vocational education in Europe. Memorandum of Cooperation for Vocational Education and Training in Europe – a document for dual vocational education should be a fundamental model of the vocational education and training

system in Europe (CEDEFOP, 2012). Euler, Dieter (2013) emphasized that the institutional structure of the states with developed dual education systems cannot be implemented in the education system of another state. But insofar are adaptable the basic principles of dual education of the respective state, and they are the same adjust of the specific circumstances and goals of that country's education system, reformation is possible. However, if the basic principles of dual education of the respective country are adapted and changed with the specific circumstances and goals of that country towards the education system, reform is possible. Thus, the experience gained in one country serves as an "Example to follow" (Swiss Agency for Development and Cooperation SDC, 2016) in the process of implementing dual vocational education in other countries.

Competency - competence

Necessary is an analysis of basic concepts "Competency" and "Competence" and the relationship between yourself. The term "Competency", in the Latin translation "competence" means "a series of questions for which someone is well aware; set of authorizations, rights (Zeer, E.F., & Zhurlova, E. 2017). Competencies are "knowledge, perceptions, activities that enable the fulfilment of professional requirements, and personal expectations." Components of jurisdiction are readiness to show competency, defining it as a motivational aspect; possession of knowledge for the content of the competency, defining it as a cognitive aspect, experience is the manifestation of competency in different standard and non-standard situations, defining it as an aspect of behavior or activity; value-semantic aspect, acting as a motivational aspect, considerable with the relationship of content of competence with the subject of his application; reflective component, expressed with emotionally-voluntary process regulation and result at a manifestation of competency (Council of Europe 2001). Competency as "integral over subjective characteristics of training of trainees, who are manifest in readiness to implement any activity in specific problem situations for time or after finishing of the training" (Nyhan, Barry 1991). Competencies of students in certain educational and work situations are manifested as active abilities in a particular activity environment and integrate the results from learning. For many scientists, the foundation of modern higher education is the principles for building competencies as a result of achieving professionalism in the profession itself. Competences combine knowledge, appropriate skills and new types of skills, what one person integrates them for the time of training and professional activity, accumulating experience (Baydenko, V.I., 2009).

Table 1

Shows the differences between intellectual resources and traditional ones

Traditional resource	Intellectual resource
Material flows and stocks	Intangible flows and stocks
In the process of use, they decrease	In the process of use, they increase
Private good	Public good
Limited	Unlimited
Replicated at great cost	Replicable at low cost
Diminishing marginal utility	Increasing marginal utility

Source: author's work

The comparison of traditional resources with intellectual resources shows that the first is characterized, after rule, with material flows and supplies, while knowledge is characterized with intangible flows and inventories. In modern theory for a knowledge-based economy, the subject of research is the structure "Knowledge - scientific and technical progress". Knowledge is a means for manufacturing. The intellectual resource she is continuously reproduced, growing and an increasingly complex environment and at the same time, the basis on is being built construction of the new economy, while many of her features are due of properties of structural material. The main properties of knowledge as a specific resource include: - the knowledge is in public ownership; - knowledge can only be used, and is not spent; - how much and to be used knowledge, that it does not stop to be beneficial; - because inventories of knowledge do not decrease, everyone can use them without fear that there is none enough; - knowledge no problem with a shortage of goods - the seller of knowledge, when selling it, do not lose and second, remains its owner and can to sell it many times (in contrast from material things); - some types of knowledge are sensitive in time - they become obsolete, sometimes and immediately; - becomes obsolete, knowledge but does not disappear without a trace; - knowledge as an economic category gets value only in context of a certain strategy for their use; - how much more knowledge, so it is more expensive and better (in the world of things, the opposite is true: the less there is, the more is more expensive and better by quality); - the quantity to knowledge constantly increasing (in contrast from irreplaceable material resources); - with each transfer of knowledge, the number of owners increases (new one is added to the previous owner); - economic activity generates more quantity to knowledge (info) than what he spends; - the process of reproduction of new knowledge is unpredictable - the results from research not always depend from the applied means; - overhead costs for reproduction of knowledge are insignificant in comparison with the full price of costs for acquiring knowledge in the value (in contrast from the world of things, where the process of repetition and communication with consumers is more expensive from the process of creation); - the knowledge, when repeated, shows increased profitability for the difference from material products and the knowledge has a unique ability, can to be presented, stored, transferred, so and even unified in digital codes.

Professional competency

The professional competence of future specialists is widely interpreted in the works of methodological and theoretical nature. Professional competence is generalize professional and personal characteristics to a specialist, which determines the quality of his activities. That is expressed in the ability to act appropriately, independently and responsibly in continuous changing of the professional environment (Adolf, V.A. 2013). Personal "competencies" represent a set of knowledge, skills and abilities of each individual who in myself absorbs them through training "Professional competence" is possession sum of specific competencies and his personal attitude of the same and the subject of activity (European Commission 2020).

The motivational component

Motivation for work - incentives, reasons, basics in benefit of employment. Motivation is the process of stimulation of one person to be active. For to make it that, should or to touch them the motives (internal psychological "veins"), or accept external stimuli, what he needs of one person to satisfy them his needs. These benefits are material (salaries, bonuses, additional payments); organizational (giving the right to participate in decision making); moral (awarding honorary titles, public praise, etc.). Analyzing the factors affecting motivation should be noticed that to the big extent their subject is concentrated on the analysis of needs and their impact on motivation. The most famous theories for motivation are the theory of the hierarchy of needs of A. Maslow, theory of acquired needs from McKelend, D. theory of two factors by F. Herzberg, theory of expectations from Wroom, W. Model Porter-Laurel. These theories they study it the question which encourages it the person of the activity. For us, are important "Existential values" by Maslow Abraham Harold, as a strong motive for human activity and personal development (Maslow, A. 2006), but also 'Expectations theory' on Vroom for the fact to the active need i.e. one person there should be hope for the type of behavior selected from him, in fact, will lead to pleasure or acquisition of the desired result -Vroom, V.H. (1964).

The professional component

The choice of the professional component is defined from the requirements of the educational standard for specialty Business administration and Low and requirements of the private sector. The absorption of specific professional and specialized competencies at a high level gives the opportunity for carrying independent technically competent decisions in real manufacturing situations and takeover personal responsibility for their judgment and in normal and in extreme conditions of their professional activities, so and in situations of uncertainty. Foreign researchers Richter, I. & Sarday-Bierman, S. (2000), and Shelten, A. (2005), define "Professional training" is a formal i.e. college education and self-education or experience. Through professional development, experience, attending various seminars, relying on scientific literature, in communication with colleagues, their competencies are improved and they will be strengthened in their further work Černak, R. Š. & Beljanski, M. (2021).

But, Kozikoğlu, İ. (2017) emphasizes the importance of cognitive constructs: humanity/cheerfulness, teaching pedagogical skills and personal values, respectively as well as innovation, sensitivity and leadership/guiding and concluding the ideal professors should be with qualifications: humanity, cheerfulness and personal values, as well as professional knowledge (content knowledge and pedagogical skills).

The cognitive component

The choice of the cognitive component are owes on the quick update of theoretical knowledge, widespread use of the latest information technologies and specimens from technical achievements. Professional skills and abilities are necessary for a competent specialist in the independent finding of technically competent solutions in real manufacturing situations, and in personal responsibility for their solution.

Personal component

The personal component in professional competence became a lot necessary for the complication of organizational and economic systems and act in uncertainty i.e. the personal component in professional competence became very necessary in the complication of organizational and economic systems and acting in uncertainty. "Personality characteristic is in ability to implement setting of goals; organize, planning, controls activities and predicts it result, and conducts analysis; motivates and stimulates activities; develops and applies different solutions for management; pulls out and analysis info from different sources; the ability of adjustment of new situations; to self-organization and thinking (Yurina E.N. 2010).

The research component of professional competency

For research activity as a special type of activity, we will look at it the model from Leontiev, A.N. (2005), in who the activity is "...a unit of life mediated from psychological reflection, whose true function is orienteering of the entity in the objective world. In other words, the activity is not a reaction nor a set of reactions, but a system of structure, internal transitions and transformations, of own development. In the structure of human activity, Leontiev, A.N. identified them the following components: need, motive, and purpose, conditions to achieve goals, stocks, and operations. These six components are from two triads: 1) needs - motives - goals; 2) actions - operations - conditions. For to define research activity as a special type of activity, necessary is of a general model of activity, In other words, necessary is to determine the components inherent for research activity. According to Leontiev, A.N. the activity is not just the actions of an individual, but also the actions of a person in conditions of activities to other people i.e. proposes some joint activities. Thus, based on of joint activity, derives individual activity on an individual face.

DUAL EDUCATION

"Knowing is not enough; we must apply. Willing is not enough; we must do" *Johann Wolfgang von Goethe*

The experience from the use of the system for dual training showed some advantages, for example, dual training system eliminates it the lack of traditional forms and training methods, the gap between theory and practice; impact on the student's personality, creates a new specialist with high motivation for acquiring knowledge; higher education institution takes them into account the needs of the labor market, because it is in communication with employers and creates a combination of theoretical and practical training in the educational process. At the same time, necessary a number of shortcomings need to be noted of the dual education system as the difficulty of content coordination at the training between the enterprise and the educational institution. In our opinion, of properly built dual education, will be provided continuity - adjustment of different levels of education, the problems will be solved for coordination of curricula and plans, the effectiveness of technologies targeted towards the practice of the educational process significantly will increase, including the efficiency of production practices significantly will increase. The double learning as a social phenomenon, of transmission of experience from professional relations, the organization of

manufacturing and working skills are inextricably linked with the theory for human cognition of reality, are the general dialectical principles of the ratio between subject and object, process and result, unique, special and general; unity of continuity and progressiveness (traditions and innovations); interpretation of integrity (specific) as a unity of diversity.

Notion's "dualism", "duality", "double" - express an abstract general methodological concept (from the Latin *Dualis* - dual) which widely are used in different areas of knowledge. In a certain area of knowledge, this concept includes a cross-section of two basic classes of things or principles, which what mutual have the influence of one to others, without changing of their structure (Gritsanov, A.A. 2003). The new term assumes presence and interaction of material and spiritual principles in the world and in person (Wettach, S. 2016). For Zemlyansky, V. & Kanakin, V. (2015) dual training is an innovative form of organization of vocational training, through coordinated interaction in the field of education and industry in staff training from a certain level and profile in accordance with the needs of a particular enterprise. The education and manufacturing have a common goal i.e. joint results from studying and training for competent specialists with a specific qualification, and with social and professional properties. Human resources are in a community with profit, what is the basis of each enterprise, and the base of education is yes them learned specialists are on grounds of high demands. Scientists which through system organization analysis of vocational education according to the methodological principle of duality as the main system-factor for dual learning is a social partnership, and by differentiation of interests and responsibilities to each partner, so leadership, according to researchers, is awarded to them of employers Euler, Dieter (2013) and Schelten, Andreas (2005). In the process of dual education, the student in his consciousness reflects a contradictory process, discovering different aspects for themselves for a change of reality, knowing their essence, through mastering the relative truth and indefinitely striving towards the knowledge of the truth. Dual education, scientifically organized, follows a dual purpose: revealing the true knowledge of students, as well as the formation of scientific theoretical thinking in them. In students, the ability develops from scattered theoretical knowledge and concepts to understanding of a real, concrete production process (François, Osiurak, Jordan, Navarro & Emanuelle, Reynaud 2018). The principle of the decisive role of practical activity in the process of cognition is based on the recognition of the practical activity as the ultimate goal of cognition. Practical activity in real production is organically related to the student's cognitive activity, with theory and provides material for cognition that is devoted of theoretical processing and generalization. Thus, practical activity as the driving force of knowledge underlines objectivity of knowledge content and serves as a criterion, a means of checking true knowledge. She is in dialectical connection with theory. Practice-oriented training is directly related to the practical training of students, with their "immersion" in professional activities during the training period represents industrial practice (in the specialty profile), practice before bachelor.

The scientific novelty of the research: - clarification of the content the structure and the essence of reversible/variables technologies as the combined dual form of education on

basis of independent work of the student in the study of the material, where the professor plays the role of consultant and mentor. The practical significance of the research lies in the development of the program for disciplines for vocational training with reversible learning; printed materials; web search programs for major special disciplines, assessment system to students' knowledge; creating an educational and methodological complex with computer support, composed of an electronic program and educational and methodological recommendations which are used in the educational process.

Theoretical background

The evaluation of educational activities in North Macedonia in quantitative terms has been transferred to universities by covering education with a theoretical perspective without practice, lead to increase the percentage of academic titles without adequate methodological knowledge, and prestige for admission to educational institutions, became "educational events" i.e. bringing what is taken for granted in such a state the objective basis has disappeared for knowledge education, and negative changes occurred in the education system (Naumovski, Ljupcho 2017). The absorption of theoretical knowledge is indisputably relevant and required for the future businessman, and it is necessary for the theory to be applied in practice. The duty of higher education is education and preparation of students for work, and institutions must understand the requirements in the labor market. Studies show that that the characteristics of education and teaching methods do not perceive higher education that it provides a sufficient foundation to enter the labor market and does not have to provide a successful career. Young people face specific challenges at the crossing from education at work: they are less likely to find work because they are new to the labor market. Sometimes young people are employed on a temporary or part-time basis (European Commission 2021). The 21st century highlights the advancement of competencies, whereby educators, policymakers and employers increasingly emphasize the development of relevant competencies. Based on a report by the OECD, Glenda Quintini, (OECD 2014), the skills form the basis of every country's economy.

METHOD

Methodological and technological support to introduce demonstration exam, active participation in the World Skills movement through active implementation of modern educational technologies: teaching methods oriented to practice (dual training) and mutualness of infrastructure and technological solutions; network and distance (electronic) forms of education; broadcasting the training experience of World Skills teams in mass training practice of staff through network interaction with interregional centres for jurisdiction formed within at the trouble centre in development and trade, with a basic vocational training centre, retraining and advanced training of workers of the Ministry of Labor of North Macedonia. About the methodology dedicated to the motivation to study at the university, the attractiveness of the profession, and determining the individual to achieve success or avoid failure, enable us to refer to the content of the motivational component of professional competence: 1) incentive for educational activity at the university; 2) interest in research activities and obtaining a

product from research activities in the form of proposals for rationalization 3) degree of satisfaction with the profession; 4) incentive to achieve success/avoid failure. The paper makes an attempt with the method of comparative analysis to define specific organizational conditions. The methodology means it is conceived according to the goal through mixed methods using theoretical calculation, analysis and synthesis of the problem, analogy, as well as training models with the specifics and problems of economics. Qualitative and quantitative methods are used, i.e. the method of theoretical analysis of metadata obtained from official reports, scientific literature and the case study method (Germany) and with a test sub-portfolio.

FINDINGS AND DISCUSSION

North Macedonia: Statistical Annex

Table 2

Annex includes annual data from 2010, 2015, 2018 and 2019 or the last available year

Indicator		2010	2015	2018	2019
Relative size of youth (age group 15-24 and age in the denominator 15-64, %) c		22.0	19.4	18.1	17.8
Educational attainment of adult population (aged 25-64 or 15+) (%) (2)	Low(3)	27.6	23.1	19.2	18.9
	Medium(4)	53.8	54.2	56.4	56.1
	High(5)	18.7	22.7	24.4	25.0
Early leavers from education and training (aged 18-24) (%) (6)	Total	15.5	11.4	7.1	7.1
	Male	13.7	10.0	5.6	5.9
	Female	17.5	12.9	8.5	8.4
Tertiary education attainment (aged 30-34) (%)		17.1	28.6	33.3	35.7
Participation in training/lifelong learning (age group 25-64) by sex (%)	Total	3.5	2.6	2.4	2.8
	Male	3.4	2.7	2.4	2.8
	Female	3.6	2.5	2.3	2.7
Participation in training/lifelong learning (age group 25-64) by education (%)	High(5)	8.8	6.1	3.9	4.5
Participation in training/lifelong learning (age group 25-64) by working status (%)	Inactive	4.5	3.1	3.7	3.9
	Employed	3.7	2.6	1.9	2.2
	Unemployed	1.6	2.1	1.8	2.9
Activity rate (aged 15+) (%) (6)	Total	58.7	58.7	58.7	59.1
	Male	71.6	70.8	71.1	69.7
	Female	45.6	46.5	46.3	48.4
Employment rate (aged 15+) (%) (6)	Total	39.9	43.4	46.5	48.9
	Male	48.8	51.9	55.9	58.2
	Female	30.9	34.9	37.1	39.5
Employment rate by educational attainment (% aged 15+) (6)	High(5)	65.0 0	65.2	68.2	71.0
Employment by sector (aged 15+) (%) C	Agriculture	M.D.	17.9	15.7	13.9
	Industry	M.D.	30.5	31.4	31.1
	Services	M.D.	51.6	52.9	55.0
Incidence of self-employment (aged 15+) (%)		28.5	26.1	23.6	21.1
Unemployment rate by educational attainment (aged 15+) (%) (6)	High(5)	21.8	21.1	17.8	14.3
Proportion of people aged 15-24 not in employment, education or training (NEETs) (%)	Total	25.5	24.7	24.1	18.1
	Male	25.1	24.5	23.3	17.1
	Female	25.9	24.9	25.1	19.2

Sources: Eurostat, OECD, UNESCO, Institute for Statistics, The World Bank, World Development Indicators database

Notes: (2) Active population aged 15-74 (4) Medium - general secondary and vocational-technical education (5) High - secondary special and higher education (6) Age group 15-74 (8)

Legend: c = calculated

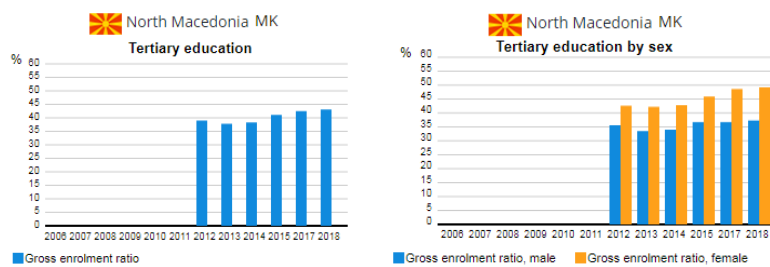


Figure 1
Tertiary education - Gross enrolment ratio and by sex
Source: UNESCO Institute of Statistics

In figure 2, we see a comparison between North Macedonia and European Union for the workers with 'Age: All' when asked 'Have you had on-the-job training in the last 12 months?' For the 'No' answer, North Macedonia's score is higher than the European Union score. For the 'Yes' answer, North Macedonia's score is lower than the European Union score.

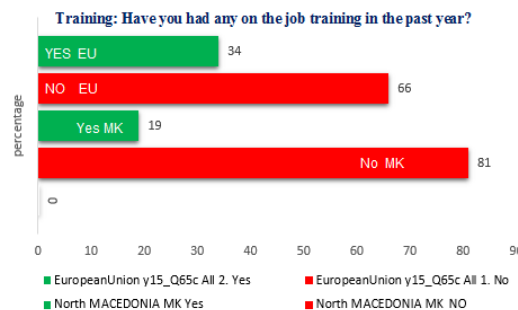


Figure 2
Training: Have you had on the job training in the past year?
Source: Eurofound's European Working Conditions Survey

From our point of view, the integration of Northern Macedonia in the world educational order perceives novelties for value quality of vocational training of students, made possible for competitiveness on the graduated real labor market. The foreign practice of developed countries opens the identification of trends and mechanisms for building effective models of systems of dual forms of education. The traditional national education system has adapted to the modern European (global) educational trends, i.e. it achieved a complete harmonization of the educational and cultural needs of the

individual correlated with personal abilities and production needs. The comparison of experiences from dual education in North Macedonia and Germany gives perception for principles of connectivity with the market of educational services, i.e. to have competition between educational service providers. Choosing the most appropriate strategy and tactics for vocational education are based on the distribution of responsibility for vocational education and market relations between the social partners. The combination of cognitive and other activities of trainees is according to age and individual characteristics of trainees, motivation for the chosen profession, is in the interdependence of theory and practice. Unequal training conditions in companies, frequent performing work which is not related to vocational education, as well as difficulties in coordination the content of the training between the enterprise and the educational institution lead to unequal quality of training. Training means acquired knowledge and skills to a specialist-professional achieved through the implementation of all principles of learning to gain experience. Final training de facto is a well-formed faculty thinking with creativity in professional activity, relying on the traditional education system

North Macedonia still is at an early stage of this type of education, i.e. cooperation between companies and state education, as a great benefit for student's for employment, which is beneficial as for the student, so for the company. In this way, Macedonian companies will be able to educate workers to meet the necessity and students have practice and of course, better employment opportunities. Duales Ausbildungssystem, (education - workplace) works with interns (16 and 19), and older, where the internship participates in a diploma from 2 to 3 years. Duales Ausbildungssystem is based on state professional policies, the law and is valid by default for all of Germany. Students from others states followed by dual studies and no faculty education can provide a scholarship in Germany or in its own state. Students are 70% in the workplace and 30% in college in terms of time. The study of the stages of the history of dual education made it possible to notice that German education has deep historical roots and strong traditions. German craftsmen were distinguished with their special skill already in the Middle Ages and Europe practised the transfer of handicrafts from master to apprentice. The market economy brings a change in traditional training "One on one" from the apprentice master in the form of double learning. Based on the analysis of the works of leading researchers in the field of dual education in Germany the analysis provides the first assessment of professional interests and student preferences, which is an important predictor for satisfaction with the profession. When comparing experience from dual education in Macedonia and Germany, the organizational and legal principles of the state authorities of Germany have been identified as a potential way of regionalization of the Macedonian educational system. Choosing the most appropriate strategy and vocational education tactics are based on the distribution of responsibility for vocational training and market relations between the social partners. The combination of cognitive and other activities of trainees is being built taking into account age and individual characteristics of trainees, by starting motivation for the chosen profession, with the interdependence of theory and practice. If there is increased economic competition will lead to the fact that employers reduce the scope of vocational training. Unequal training

conditions in different companies, the frequent performance of work that is not related to vocational training, as well as difficulties in content coordination of training between the enterprise and the educational institution lead to unequal quality of training. The training means acquired knowledge and skills of a specialist-professional achieved through the implementation of all principles of learning by gaining experience. The final training is the student *de facto* to have well-formed faculty thinking and be able to use creativity in his professional activity, relying on the traditional education system.

Most relevant North Macedonian difficulties of educational progress at the present stage is a priority of improvement of education because of the lack of professionals in the labour market. Employers in North Macedonia with a loud voice declare that improvement is needed in the quality of professional training of specialists. The Macedonian standard provides training and graduation of such specialists which will be capable of self-realization, socially mobile, easily adaptable to modern market conditions of economic progress of the region and in North Macedonia, able to develop, supplement and change own life strategy. Personal opinion, Macedonian dual education which is an early stage of implementing a planned mandatory it must be capable to solve two problems simultaneously: increased educational quality and reducing the shortage of professionals. Dual education to enable practical training in the workplace, and theoretically in the faculty. So in studies, students to master their chosen profession indirectness with practice, that is, studies in two places at once: 1-2 days a week in college, the rest of the time - in practice. Main tasks: • finding models of financial participation at the market in programs for staff training, network interaction in staff training; • approval based on checks, popularization of dual models of education in the pilot regions. Expected results from the introduction of dual models of education include 1. The training focused on existing production. 2. Increasing the interest of companies for financing. 3. Variety of individual educational programs. 4. Improving qualifications. 5. The growth of the prestige of the professions.

The dual training provides a general theoretical basis for the beginning, and in the second or third year - work on individuality in correlation with educational tasks oriented towards practice, in a production environment. Practitioners can be involved in conducting this work. The final certification is implemented in the form of a *de face* of a course or diploma project in a specialization, with great attention paid to the practical significance of the work. This form of training organization requires additional financial and labor costs but also provides additional benefits for each of its participants. With dual training, the student acquires professional competencies, as well as the ability to work in a team. In the process of work, he understands his future speciality in a new way and makes an informed decision for the correct choice of profession. Despite everything, future specialists with conscientious work can provide additional income and work experience, which is extremely necessary for employment in modern conditions.

Pros of dual business training: 1. The study programs with their implementation should be only on the proposals of the employers. The consequence is the acquisition of knowledge related to production, so the qualifications of specialists will be by the standard in production. 2. The specialist directly on the job acquires professional skills,

abilities, competencies and he is motivated for production activities and ready to work in production. 3. The student gets acquainted with and assimilates the norms of corporate culture in practice. 4. Graduates from specialized educational institutions go to work in those enterprises where they had an internship. 5. Cooperation with companies in dual training allows the employer to organize training in the company and, in the advanced training program, to select the most qualified. Advantages of double learning: - Participation of the employer in adjusting the study programs and providing a high percentage of employment of graduates, because they fully meet the requirements of the employer. The training is as close as possible to the needs of production. - high motivation for acquiring knowledge, forming the psychology of the future employee. - bridging the gap between theory and practice; - creating high motivation for acquiring knowledge and acquiring skills at work, because the quality of their knowledge is directly related to the performance of official duties in the workplace; - interest of the heads of the respective institutions for practical training of their employees; - an educational institution that works in close contact with the company takes into account the requirements for future specialists during the training. In practice, the professor is faced with the urgent question "How to assess the level of competency formation?" It turns out that in terms of a competency-based approach, traditional methods of control and evaluation of knowledge and skills are not enough, it is necessary that the subject of assessment is not only the professor but also the student, who must be involved in the self-assessment process. Education acquires problems, but by finding ways to involve students in training, initiating personal development (self-awareness and self-knowledge), enables success in solving educational and professional tasks and, thus, realizes personal and professional formation. The problem is solved by applying in practice introspection and self-assessment. Building the student's ability for self-esteem is part of the competency-based approach to studies. A person who can not evaluate himself and his work in a particular area, or who is assessed as biased (overestimated or underestimated), can not be considered competent in this area. Therefore, TPC professors in their activities set a task: to attract students to assess their level of competency formation through self-analysis. In the Professional Competencies Test, to solve this problem, a portfolio for self-assessment of students in the process of studying the professional module PC "Implementation of business law and contract law in the organization" in the speciality "Business Administration" was developed and applied.

The portfolio is student self-assessment for their own work in the study of the professional module, allowing the student to assess the discipline from the perspective of mastering competencies during the performance of the practical and independent work. The portfolio in the speciality "Business Administration" consists of 1) a List of skills and knowledge that the student must acquire in studying and mastering the professional module. 2) List of general and professional competencies of the program "Business Administration" with five professional competencies (PC) and nine general competencies (GC). 3) Self-assessment sheets made according to the topics of the professional module in accordance with the work program. 4) Tables with evaluation parameters, which are a guide for the student when filling out sheets for self-assessment. 5) The final summary table for all topics, on the basis of which the final grade is set for

the interdisciplinary course. The self-assessment sheet is completed after studying the theoretical and practical study of topics on PC. Based on the work program, the following topics were formed: - Legal norms and sources. - Contract law. - Industrial property. - Securities. - Intellectual property. - Know-Now. - Entities - companies. The self-assessment sheet consists of a large number of tables that the student must fill in on their own and give themselves a grade for assessment. The table for acquiring knowledge and skills (Table 3) during the study of a certain topic will be filled in from the list given in the portfolio. In the last column of the table, the student must check his/her written list with the table of assessment parameters and put the appropriate result:

Table 3

Knowledge and skills Enter the skills and knowledge you were able to acquire

Knowledge	Skills
.....

Final result:

3 points are given if your list is fully in line with the evaluation parameters

2 points are given if your list corresponds to 70-90% of the evaluation parameters

1 point is awarded if your list meets less than 70% of the grading parameters

The table for establishing general and professional competencies is filled in based on the first table and the list of GK are given in the portfolio (Table 4). So, if the student is evaluated on the first table of points "3", then the professional competencies provided for this topic are completely mastered. If, however, the student scores on "2" points, then some of the competencies, as a result, are partially mastered or not mastered at all. In the final, the student must also give himself a total grade.

Table 4

General and professional competencies Note formed GC and PC

Competencies	Formation level		
	Fully mastered	Mastered partially	Not mastered
General competences			
Professi. competences			

Final result:

3 points are given if your level of competence development fully corresponds to the assessment parameters

2 points are given if your level of competence formation corresponds by 70-90% to the assessment parameters

1 point is given if your level of competence formation corresponds to less than 70% of the assessment parameters

Next, a table is filled in, in which the student's comprehensive work is evaluated according to the stated criteria (Table 4); to assign points, the student also uses the table of assessment parameters. The final table in the self-assessment sheet is the teacher performance appraisal table (Table 5), which serves as feedback from the student to the teacher. Which is a source of introspection for the teacher himself and allows him to improve his work and make it more effective.

Table 5
Evaluation of student work Evaluate the work on a three-point scale

№	Evaluation parameters	Score
1.	Attendance at classes and consultations	
2.	Performing practical work	
3.	Independent work in the lesson	
4.	Doing homework	
5.	Activity in the lesson	
6.	Participation in open lessons and seminars	
7.	Preparation of presentation and presentation	
8.	Assessment of knowledge and skills	
9.	Assessment GC and PC	
10.	Final testing on the topic	
	TOTAL	

Table 6
Evaluation of the professor's work. Evaluate the professor's work on a three-point scale

№	Evaluation parameters	Score
1.	Availability of the material presented	
2.	Comfortable psychological atmosphere in the lesson	
3.	Availability of handouts	
4.	The relationship of the material presented with the future profession	
5.	Objectivity by the teacher when placing evaluations	

Because the self-assessment sheet is a nominal job, and when filling in Table 6, students were not completely objective and embarrassed, an anonymous electronic form of the professor's assessment survey was developed. Students can safely fill out this form at any time after studying the topic from any device with Internet access. The final summary table for all topics is made by the students after filling in all the self-assessment sheets, where only the final result for table 4 was transferred. In this table, the student independently calculates the percentage of development compared to the maximum score and gives a final grade: The mark "excellent" is given if the percentage of development is 91-100%. The grade is "good" if the percentage of development is 81-90%. Rating "satisfactory" - the percentage of development 71-80%. The rating is "unsatisfactory" - the percentage of development is less than 70%. At the end of the study of the discipline, the professor forms a summary table for self-assessment in the group:

Table 7
Development result. Result of mastering an interdisciplinary course within the PC

Full name	Topic 1		Topic 1		Topic 3		Topic 4		Topic 5		Topic 6		Topic 7		TOTAL	
	scor	%	scor	%	scor	%	scor	%	scor	%	scor	%	scor	%	scor	%
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
SN	20	67	23	77	23	77	23	77	25	83	27	90	29	97	170	81
NS																

RESULTS

The results of the paper allude that without a university education and without acquired skills - competencies all individuals will be faced with unemployment so that work will become an illusion. The results proved: 1) Determined is the place of dual education in the education system, its function and a role in the development of the national economy; 2) Dual education plays a significant role in the formation of competitiveness on the field by increasing professional potential of the population, solves adaptation problems in the context of dynamic technological advancement and provides social safety for the citizens; 3) The building educational potential through a dual education system is a strategic mission for the development of the Macedonian economy. The vocational education programs in North Macedonia are by volume of knowledge are provided through programs for advanced training and professional retraining. The division is according to their tasks (European Higher Education Organization, North Macedonia). The professional development programs are realized for improvement and (or) acquisition of new competencies required for professional activity and (or) raising the degree of qualifications. Companies make a forecast advance for needs on labor force, and a graduate student begins his path to the profession looking for enterprise for him to train, and not by choosing a university, and all that because is in the company for the qualitative and quantitative needs from vocational training (Akhtamzan, N.A. 2014). The "qualification" program is for higher qualifications of new professions-professional activities or, a total adaptation of professions-professional competencies in the same type of profession-professional activity (European Commission 2013), Official Journal of the European Union (2013). The main factor in choosing a profession for students in Germany is the adequacy of the work with their abilities. In second place are high salaries and in third place is the possibility of self-improvement. The employer in the process of industrial training assesses the real abilities of the student and the potential for his professional growth (Pisareva, L.I. 2012). Today in companies in Germany about 5% of the number of employees are apprentices. Students learn their profession from specially trained mentors. No more than two students are assigned to each mentor in production, which ensures high-quality training and implementation of an individual approach (Burdakov, V.P. 1997). Based on experience, positive conclusions were drawn from the use of the portfolio for self-assessment during the study of the professional module: 1) the portfolio allows the student visually to get acquainted with his knowledge, skills and competencies which he must overcome and set a specific goal for the learning outcome. 2) Self-assessment motivates students to get more points, stimulates them to work harder on their own, more active participation in seminars, in the preparation of speeches and presentations of works. The use of a self-assessment portfolio made it possible to achieve a high percentage of quality and absolute student performance in the professional module and guided students towards achieving high learning outcomes.

The results can also be used to prepare students from other profiles. The structure of the developed educational-methodological complex with computer support can serve as a basis for writing textbooks in other disciplines.

CONCLUSIONS

From the presented really dominate two hypotheses: - Existing forms of dual education do not satisfy fully meet the needs of students and management staff and makes a problem in the sphere of social partnership. - The existing content of dual education in the current Macedonian reality does not satisfy completely. *We suggest* the practice to be in an interactive task (education and professional practice), and unfolding in real locations and structural divisions of enterprises, and in close interaction with employers for the time period of training. Practical training, i.e. educational and professional practice, to take place in real locations, and structural divisions of enterprises. Dual college training to be realized through close interaction with employers during the training period. Thus, specialists-professionals to be involved in theoretical training, including as professors and experts in the evaluation of study programs, work-study programs for academic disciplines, professional modules, internship programs, etc. Practical training to take place in real professional locations. So, let me draw a definite conclusion - a dual system allows a combination of theoretical and practical training in the educational process. Simultaneously with the studies, students master their chosen profession directly, i.e. study in two places at once. The main advantages of the dual education system - Dual education programs: 1) Opening additional opportunities to increase the effectiveness of training with the highest qualifications; 2) To ensure diversification of vocational education, i.e. to allow increasing the diversity of the offered professional programs; 3) Contribute to the more diverse professional development of students; 4) Provide interconnection, interpretation and mutual influence of different systems (science and education, science and production, etc.), leading to qualitative changes in education. Ultimately, it is economically expedient for employers to invest in education, because "on the way out" receive a ready-made specialist who is thoroughly familiar with the specifics of the work. For trainees, dual education, along with optimal transfer of professional experience, means a completely different degree of socialization: young people are tested and learn to confirm their position in working conditions, and thus and in "real life" situations. The trained staff at the end of the training can be immediately involved in the manufacturing, and to emphasize the need for professional adaptation disappears. Today's market is in need of quick thinking, flexibility, etc., and self-motivation becomes the dominant tool for professional self-promotion and social success.

REFERENCES

- Akhtamzyan, N.A. (2014). The system of state and public administration of education in Germany. *Pedagogy*, 6, 85-93. Available from: <https://istina.msu.ru/publications/article/6303888/>
- Adolf, V.A., (2013) Residence of professional competence of a pedagogue. *Siberian Pedagogical Journal*, 5, 38-41, pp. 39 Available from: <http://scholar.sfu-kras.ru/author/35171716>.
- Amrik, J., Hittig, G.G., Gál, Zs., Bárczi, J., & Zéman, Z. (2018). Investing in the Future Civil Review. *Economic and Social Journal*, (14) pp. 140-164. DOI: <https://doi.org/10.24307/psz.2018.0410>

Baydenko, V.I. (2009). *Bologna Process: Learning Outcomes and Competence-Based Approach*. M. Research Center for the Problems of the Quality of Training of Specialists, p. 138. Available from: <http://www.umo.msu.ru/docs/18.pdf>

Burdakov, V.P. (1997). *The efficiency of life*. M. Energoizdat, 204 p. Available from: <https://www.twirpx.com/file/2289048/>

CEDEFOP (2012). *Germany - 2012 Berlin memorandum on cooperation in VET in Europe brings positive outcome*. Available from: <https://www.cedefop.europa.eu/en/news/germany-2012-berlin-memorandum-cooperation-vet-europe-brings-positive-outcome>

Council of Europe (2001). *Common European Framework of Reference for Languages: learning, teaching, assessment*. Cambridge University Press. Available from: <https://rm.coe.int/1680459f97>

Černak, R. Š. & Beljanski, M. (2021). Pedagogical-psychological subjects in teacher education faculties in Serbia: a proposal of the core curriculum. *International Journal of Instruction*, 14 (3), 929-944. DOI: <https://doi.org/10.29333/iji.2021.14354a>.

Euler, D. (2013) *Das duale System in Deutschland. Vorbild für einen Transfer ins Ausland*, Bertelsmann Stiftung, Gütersloh Euler. 82 p. Available from: https://www.bertelsmann-stiftung.de/fileadmin/files/BSt/Bibliothek/Doi_Publikationen/GP_Germanys_dual_vocational_training_system.pdf

European Commission, Eurydice, Republic of North Macedonia Overview. Available from: https://eacea.ec.europa.eu/national-policies/eurydice/content/former-yugoslav-republic-macedonia_en

European Commission, (2013). *Modernisation of the Professional Qualifications Directive*. Available from: https://ec.europa.eu/commission/presscorner/detail/en/MEMO_13_867

European Commission (2020). Education and training ECTS. *Glossary*, Users guide. Available from: https://ec.europa.eu/assets/eac/education/ects/users-guide/glossary_en.

European Commission, (2021). *European employment strategy. Youth employment support*. Available from: <https://ec.europa.eu/social/main.jsp?catId=1036>

European Higher Education Organization, North Macedonia. Available from: <https://eurohighereducation.com/north-macedonia/>

François, O., Navarro, J. & Reynaud, E. (2018). How Our Cognition Shapes and Is Shaped by Technology: A Common Framework for Understanding Human Tool-Use Interactions in the Past, Present, and Future, *Frontiers in Psychology*, DOI: 10.3389/fpsyg.2018.00293

Great Soviet Encyclopedia (1999). Electronic resource. Access mode (date accessed: 10/29/2020). https://biblioclub.ru/index.php?page=dict&dict_id=63

Gritsanov, A.A. (2003). *The latest philosophical dictionary*, 3rd ed., Book House. 4573 s. World of encyclopedias. ISBN 985-428-636-3. Available from: https://pnu.edu.ru/media/filer_public/2013/04/17/newest_philosophical_dictionary.pdf

- Kozikoğlu, İ. (2017). Prospective Teachers' Cognitive Constructs Concerning Ideal Teacher Qualifications: A Phenomenological Analysis Based on Repertory Grid Technique. *International Journal of Instruction*, 10(3), 63-78. DOI: <https://doi.org/10.12973/iji.2017.1035a>
- Leontiev, A.N. (2005). *Activity. Consciousness*. Personality, M. Academy, p. 65 Available from: <https://www.marxists.org/russkij/leontiev/1975/dyatyelnost/deyatelnost-soznyanie-lichnost.pdf>
- Maslow, A. (2006). *Motivation and Personality*. St. Petersburg: Peter, 352 p. Available from: http://www.bim-bad.ru/docs/maslow_motivation_and_personality.pdf
- Naumovski, Lj. (2017). The Relatively Low Level of Education and Training Problem of Youth Unemployment Macedonia. *International Journal of Advances in Management and Economics*, 6(3), 29-33. Available from: <https://www.managementjournal.info/index.php/IJAME/article/view/42/41>
- Nyhan, B. (1991). *Developing People's Ability to Learn*. A Community Programme to promote Innovation in Vocational Training Resulting from Technological Change. European Perspectives on Self-Learning Competency and Technological Change. Brussels. Available from: <https://files.eric.ed.gov/fulltext/ED355333.pdf>
- OECD (2010). *Learning for jobs: Synthesis Report of the OECD Reviews of Vocational Education and Training*. Paris, OECD publishing. DOI: <https://doi.org/10.1787/9789264087460-en>
- OECD (2014). *Skills beyond school: Synthesis report*. Paris, France: OECD publishing. DOI: <https://doi.org/10.1787/9789264214682-en>
- Official Journal of the European Union (2013). *Amending Directive 2005/36/EC on the recognition of professional qualifications and Regulation (EU) No 1024/2012 on administrative cooperation through the Internal Market Information System the IMI Regulation*. Available from: <https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:32013L0055&from=MT>
- Pisareva, L.I. (2012). *Education Management in Germany: Tradition and Innovation. Problems of modern education*, 3, 60-78. Available from: <http://www.consultant.ru/cons/cgi/online.cgi?req=doc&base=ESU&n=612#0>
- Pedagogical encyclopedic dictionary (2002). *Russian Encyclopedia* d. B. Bim-Bada. M. 528 pp. Available from: <https://docplayer.com/33348848-Bim-bad-b-m-pedagogicheskiy-enciklopedicheskiy-slovar-m.html>
- Pedagogical terminological dictionary* Electronic resource. Access mode: (date of access 03/31/2020). https://pedagogical_dictionary.academic.ru/
- Richter, I., & Sardei-Biermann, S. (2000) *Jugendarbeitslosigkeit. Ausbildungs und Beschäftigungsprogramme in Europa*. Opladen: Leske and Budrich. 245 p. Available from: <https://www.springer.com/de/book/9783810024848>,
- Russian Pedagogical Encyclopedia (1999). *Great Russian Encyclopedia*, ed. V.V. Davydov. In 2 volumes. II volume. Moscow: Great Russian Encyclopedia, 234 p. 124 Available from: <https://www.klex.ru/8me>.

- Romm, M.V. & Roma, T. A. (2010). Socialization and professional education in higher education. *Higher education*. No. 12. pp. 104-114. Available from: <http://www.vovr.ru/upload/romm.pdf>
- Slastenin, V.A., Isaev, I.F. & Shiyarov, N.E. (2002). *Pedagogy: textbook. Establishments*. M. Academ. pp. 139 Available from: <http://psihdocs.ru/ucheb-posobie-dlya-stud-vissh-ped-ucheb-zavedenij--v-a-slasten-v3.html>
- Schelten, A. (2005). *Begriffe und Konzepte der berufspädagogischen Fachsprache*, Stuttgart: Franz Steiner Verlag. 164 p. Available from: <https://elibrary.steiner-verlag.de/book/99.105010/9783515117326>
- Swiss Agency for Development and Cooperation SDC (2016). *Vocational skills development: key to employment and income*. Available from: [https://www.shareweb.ch/site/EI/Documents/VSD/About/2016_SDC_VET_brochure%20\(en\).pdf](https://www.shareweb.ch/site/EI/Documents/VSD/About/2016_SDC_VET_brochure%20(en).pdf)
- Vroom, V.H. (1964) *Work and motivation*, New York: Wiley. 331p. Available from: <https://www.scribd.com/document/408299722/WORK-AND-MOTIVATION-Victor-Vroom-pdf>
- Wettach, S. (2016) Einführung in das marketing am Beispiel eines Personaldienstleistungsunternehmens: Ein Lehr und Arbeitsbuch mit mehr ALS 80 Aufgaben und Lösungen. S. Wettach. Diplomica Verlag. 76 p. Available from: <https://www.grin.com/document/292772>
- Yurina E.N. (2010). Problems of Self-Realization of a person in the professional space. *Pedagogica*. South-Russia State University of Economics and Service. Available from: http://www.rusnauka.com/12_ENXXI_2010/Pedagogica/64935.doc.htm
- Zeer, E.F. & Zhurlova, E., (2017). Navigational aids as tools for supporting the development of competencies in the context of the implementation of an individual educational trajectory, *Education and Science*, 3, 77-92. Available from: <https://www.edscience.ru/jour/article/view/781/632>
- Zemlyansky, V.V. (2010). The dual system of training specialists as a form of integration of vocational education and production, *Integration of education*. No. 3. p. 9-14. Available from: <https://cyberleninka.ru/article/n/dualnaya-sistema-podgotovki-spetsialistov-kak-forma-integratsii-professionalnogo-obrazovaniya-i-proizvodstva>
- Zemlyansky, V. & Kanakin, V. (2015). Theoretical aspects of dual target training of specialists, *Questions of modern science and practice. Tambov University*, 1(37). p. 104. Available from: <http://vernadsky.tstu.ru/pdf/2012/01/13.pdf>