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## THE IMPORTANCE OF WORK-BASED LEARNING: COOPERATION BETWEEN VOCATIONAL SCHOOLS AND COMPANIES IN NORTH MACEDONIA

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**Abstract:** Work-based learning (WBL) plays a vital role in vocational education by bridging the gap between theoretical knowledge and practical workplace skills, enhancing students’ employability and readiness for the labour market. This study investigates the implementation of WBL in 23 vocational secondary schools and 45 partner companies in North Macedonia, focusing on the models, forms, quality, and challenges of practical training, as well as the need for a dedicated business liaison officer. Data was collected through surveys and round-table discussions with schools, companies, and stakeholders, analyzing coordination between schools and employers, mentor roles, and student engagement. WBL practices in North Macedonia are often inconsistent, with limited company-based exposure, insufficient mentor training, and gaps in school–company cooperation. The study highlights the importance of systemic harmonization, improved collaboration, and the establishment of a WBL coordinator to ensure high-quality practical training, strengthen school–company partnerships, and enhance students’ technical, social, and professional competencies.

**Keywords:** North Macedonia, practical training quality, school–company cooperation, work-based learning (WBL)

### 1. INTRODUCTION

Work-based learning (WBL) is one of the most relevant strategies for improving the quality of vocational education, as it enables the integration of theoretical content with practical experience in real working conditions. Work-based learning offers future leaders the opportunity to build real-world experience, strengthen key competencies, and better understand how organizations function (Selznick et al., 2022). Its application contributes to the development of students’ technical, social, and emotional skills, increasing their competitiveness in the labour market. Although the importance of WBL is widely recognised, many education systems, including the Macedonian one, still face limited exposure to real work environments and insufficient alignment with employer needs. The role of intermediary structures such as business liaison officers is particularly important, as they facilitate effective planning, organization, and monitoring of practical training. This paper aims to analyse WBL models and practices in vocational secondary schools, identify challenges, and assess the need for new organizational solutions to improve school–company cooperation.

Work-based learning (WBL) is an educational strategy that offers students real work experiences in which they can apply academic and technical skills and enhance their employability. It is learning that takes place in the work environment through participation in practical tasks and work processes and is integrated within vocational education and training. When properly and effectively implemented, students not only acquire relevant practical skills but also strengthen social and emotional competencies such as teamwork, problem-solving, and time management.

Companies hosting students for practical training also benefit from these processes. They can adjust programmes to ensure that students acquire skills most relevant to the company and become familiar with potential future employees, enabling better selection during recruitment. Throughout the WBL process, companies benefit from student contributions to their workflows, often in ways that reduce operational costs.

Despite strong recognition of WBL’s importance, many vocational education systems worldwide remain primarily school-based and offer limited real workplace experience. In today’s fast-changing, technology-driven environment, employees are increasingly required to develop a wide range of skills across different domains. Although specific roles may prioritize certain abilities more than others, the overall goal remains the same: shaping individuals who are attractive to employers. In the dynamic context of the twenty-first century, adaptability and versatility have become especially important, as industries, opportunities, and societal expectations continue to shift. As many university graduates struggle to secure positions in their intended fields (Brooks et al., 2011), and as workers frequently transition through multiple roles over the course of their careers, the need for continuous reinvention has become essential.

A business liaison officer is a person who mediates between two organizations, communicates, and coordinates their activities. These officers are generally used to ensure optimal and rational use of resources. Schools employ business

liaison officers to establish connections with partner companies where students complete work-based learning. Their role is to develop and implement positive relations with schools, employers, and other organizations; cooperate with internal departments; and support high-quality student engagement activities that promote progression and employment opportunities.

Notably, work-based learning opportunities frequently boost students' motivation, engagement, and soft skill development. At the same time, they contribute to a broader, more capable workforce, which can ultimately lower employers' expenses related to onboarding and training (Dobbs-Oates, 2019). Gaining hands-on experience through work-based learning helps individuals perform more effectively in middle-skill roles early in their careers, which can, in turn, increase their long-term earning potential (Hamnett & Baker, 2012).

This paper is structured into four main sections. Following this introduction, the literature review provides an overview of recent research on work-based learning (WBL), highlighting its role in developing technical, social, and professional skills, and summarizing key findings on models, strategies, and challenges from international and national studies. The methodology section describes the research design, data collection, and analysis procedures used to examine WBL implementation in vocational secondary schools and to define the role and competencies of a business liaison officer. The results section presents the main findings regarding WBL practices, organizational models, school-company cooperation, and the current state of practical training in North Macedonia. Finally, the conclusion and recommendations synthesize the study's insights, discuss the implications for policy and practice, and propose measures to strengthen WBL, improve school-company collaboration, and enhance student outcomes in the vocational education system.

## 2. LITERATURE REVIEW

Recent years have seen growing pressure from industry for graduates and young workers to demonstrate strong professional skills. This demand is driven by rapid technological innovation and the continuous expansion of workplace knowledge, requiring organizations to adapt constantly. These disruptions affect all labour market participants, yet young entrants are particularly vulnerable, as they lack established structures or experience to protect them from such shifts. As a result, recent graduates face increasingly complex and uncertain labour market conditions, highlighting the need for more effective preparation through education and training (Mahfud et al., 2025). According to Urkia-Basterra et al., (2025), existing research on work-based learning shows considerable variation in how soft skills are conceptualized, reflecting the overall complexity of soft skills frameworks. Although communication and teamwork skills emerge as the most frequently cited competencies, the literature demonstrates limited consensus on the broader set of skills essential for workplace success. The authors also note that only a small number of studies discuss specific strategies for fostering soft skills, such as reflective practices or building personal connections, indicating that this remains an underexplored area requiring further research.

Bilderback (2025) highlights that work-based learning (WBL) strengthens leadership, fosters organizational development, and supports economic growth. WBL initiatives help build influential leaders, promote a culture of learning and innovation, and enhance organizational competitiveness, demonstrating its key role in driving positive outcomes across individual, organizational, and economic levels.

Plasman and Thompson (2023) demonstrate the economic benefits of work-based learning (WBL) for high school students, showing that participation in at least one WBL experience is associated with an average 7% higher early career income. Specific activities such as job shadowing, community service, and mentoring were found to have the strongest positive effects. The study highlights that WBL not only enhances college and career readiness but also suggests that schools, policymakers, and students should carefully consider which WBL opportunities best align with individual goals to maximize long-term benefits.

Talbot et al., (2017) review the key elements and theoretical foundations of work-based learning (WBL) in higher education, drawing primarily on experiences from the United Kingdom. Their analysis highlights student preferences for WBL programs, employer expectations regarding training quality, and university policies that foster innovative learning environments. The study also addresses challenges in establishing long-term university-industry partnerships and emphasizes the value of a transdisciplinary framework to support learner-driven experiences.

Helyer (2015) highlights the importance of reflection in work-based learning (WBL), noting that it allows learners to make sense of past experiences and informs future actions. Reflection enhances self-awareness, supports personal and professional development, and helps embed theoretical knowledge into practice. Additionally, it fosters continuous innovation and improvement, with benefits that extend beyond individual learning to influence broader professional and social contexts.

Jackson et al., (2022) highlight the role of employers in developing professional capabilities among early career workers, showing that work-based learning (WBL) helps address graduate skill gaps. Their study identifies approaches shaped by sector, organizational size, and sociocultural factors. Key principles for effective WBL

include combining active and passive learning, providing formal training, setting measurable goals, and fostering a supportive workplace culture. These strategies enhance human capital and facilitate smoother transitions into complex work environments.

Kilpatrick et al., (2022) explore how social enterprises use work-based learning (WBL) to develop capabilities and promote social inclusion for disadvantaged participants. Drawing on situated learning and spaces of well-being theories, the study shows that WBL in these contexts enhances both practical skills and identity formation.

In the SEE region, the research by Nixdorf et al., (2023) showed that work-based learning (WBL) plays a crucial role in enhancing learning effectiveness and workforce productivity. The study highlighted the growing need for innovative upskilling programs due to digital transformation in manufacturing and emphasized that professional education institutions must assess current training programs to identify opportunities for tailored solutions. Using Croatia as a case study, Nixdorf presented various WBL initiatives, including blended and hybrid approaches in Smart Factory training curricula, and provided recommendations for improving WBL across the SEE region through learning factories.

### 3. METHODOLOGY

Two interdependent areas were explored regarding the implementation of practical training/WBL in vocational secondary schools. The first area examined methods and forms of WBL implementation, strengths and weaknesses, and needs for improvement. The second area identified the need for establishing the job position “business liaison officer” and defined its tasks, roles, responsibilities, and competencies.

The research included 23 vocational secondary schools and 45 companies, confirming the representativeness of the sample. It was conducted through two questionnaires and round-table discussions with all stakeholders, resulting in two outcomes:

*Result 1:* Conditions, models, and organization of practical company-based training/WBL, challenges, and improvement mechanisms.

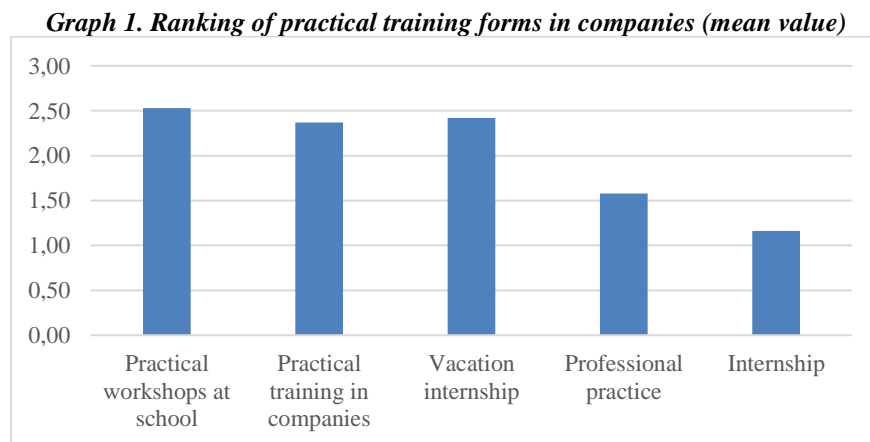
*Result 2:* Professional profile of the person coordinating schools and companies, including tasks and competencies.

System document analysis shows that the term “work-based learning” appeared for the first time in the Concept for Modernizing Technical Education and curricula for four-year technical education. In other documents, the concept is referred to as practical training at the employer. Although the term is still not widespread in programme documents, its meaning is understood and accepted in communication between schools and companies. Through the term “practical training,” WBL is systemically embedded in several laws, bylaws, and documents.

### 4. RESULTS

The questionnaire in 23 schools showed that vocational schools in North Macedonia have an average of 339 students, with about 150 participating annually in practical training in companies.

The most common form of practical training is practice conducted in school workshops.

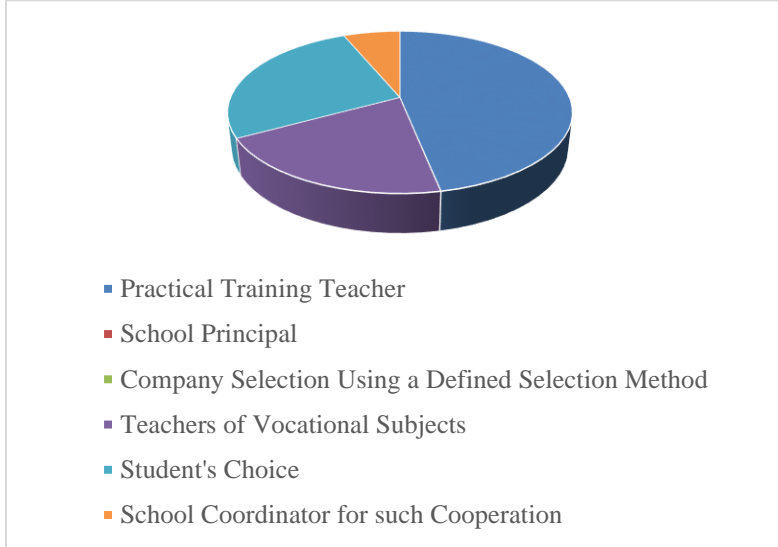


Source: Survey for VET schools in RNM – October 2023

Schools reported frequent situations where companies do not meet legal and standard requirements for practical training.

To the question of who within their institution is responsible for assigning students to practical training/WBL in the companies with which cooperation agreements have been established, the following answers were obtained (Graph 2).

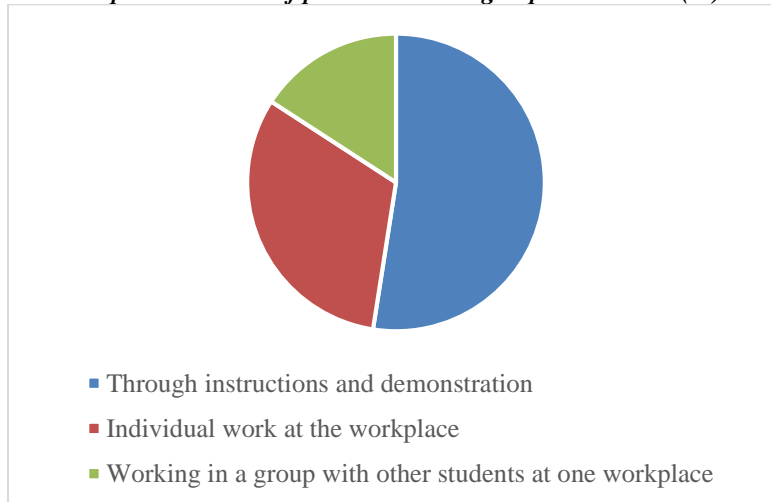
**Graph 2. Person responsible for student allocation to company-based training (%)**



Source: Survey for VET schools in RNM – October 2023

The analysis continues with the most common WBL delivery methods (Graph 3) and the time spent in companies in 3- and 4-year education programmes.

**Graph 3. Methods of practical training implementation (%)**



Source: WBL Survey for VET schools in RNM – October 2022

The findings regarding the manner of implementing practical training show that in most schools, students carry out practical training in companies through instruction and demonstration, while individual work at the workplace and group work with other students at the workplace are less represented.

To the question of whether the company in which the student is included in the practical training/WBL process has any of the listed persons/employees responsible for supporting, supervising, or monitoring the students in this process, the results showed that most often the person responsible for support, supervision, or monitoring of the students during work-based learning is selected randomly—that is, it is usually the person who is currently responsible for receiving students who visit the company for the purpose of carrying out practical training within it.

An important aspect of the analysis is determining how practical training teachers ensure alignment between school-based practical instruction and company-based training in firms with which the school has a work-based learning agreement. The results showed that this is most commonly achieved through agreement and cooperation, as well as continuous communication between both sides (the practical training teacher and the responsible person/mentor in the company) for implementing practical training in accordance with the curriculum and programme for the specific qualification.

As a result, this analysis sought to understand the respondents' views on the need for a person employed in the school who would be responsible for organizing practical training/WBL and coordinating cooperation between the school and the companies. Thus, 79% of schools believe that such a person is needed, while 21% do not agree. Specific responses were also received indicating that responsibility for these processes should lie exclusively with the practical training teachers, who should be willing to collaborate and communicate with the companies (social partners) where students carry out practical training. Regarding the job title of the person employed in the school to facilitate cooperation between the school and companies for the work-based learning process, 63% of respondents believe that the most appropriate title is "work-based learning coordinator".

## 5. CONCLUSION AND RECOMMENDATIONS

The analysis of the current work-based learning (WBL) system in North Macedonia demonstrates that practical training is widely recognized as a crucial component of vocational education and an essential mechanism for improving the quality of the labour market. Although multiple models of practical training exist such as school workshops, practical instruction in companies, summer internships, and professional practice, their implementation is inconsistent across regions and sectors. Many schools rely heavily on school-based workshops, while opportunities for company-based learning remain limited, often due to a shortage of suitable companies or insufficient organizational capacity within existing partners. This uneven distribution results in significant differences in student exposure to real working environments. Furthermore, cooperation between schools and companies is often hindered by rigid curricula that do not align with workplace processes, insufficiently trained company mentors, inadequate communication channels, and logistical barriers such as lack of transportation, safety equipment, and student insurance. Companies frequently report challenges related to student behavior, irregular attendance, and low motivation, while schools emphasize the need for more structured support from employers. Despite these challenges, both parties acknowledge the transformative potential of WBL for enhancing students' knowledge, skills, and competencies, and for improving their employability. One of the most important findings is the clear need for a more systematic and professional approach to coordinating WBL activities. The absence of a dedicated person responsible for managing school-company cooperation has led to fragmented communication and inconsistent practices. The introduction of a WBL coordinator tasked with organizing partnerships, preparing agreements, monitoring student progress, aligning training programmes, and ensuring compliance with safety and quality standards emerges as a key requirement for strengthening WBL implementation. Overall, the results confirm that WBL has significant potential to enhance vocational education, but coordinated institutional support and structured partnerships are necessary to maximize its impact.

To enhance the effectiveness of WBL programs, several recommendations emerge. First, stronger collaboration between educational institutions, employers, and policymakers is necessary to ensure that WBL opportunities are relevant, well-structured, and accessible to a diverse group of learners. Second, programs should integrate clearer learning objectives, mentoring practices, and regular evaluation mechanisms so that skills gained during placements are measurable and aligned with industry expectations. Third, expanding partnerships with small and medium enterprises can increase the availability of quality placements while encouraging broader employer participation. Additionally, providing students with structured pre-placement preparation (such as training in communication, workplace behavior and basic technical skills) can help them enter WBL experiences more confidently and achieve stronger outcomes. Finally, policymakers should consider incentives that encourage employers to invest in training, such as tax benefits or recognition programs, while also ensuring that WBL remains inclusive and accessible, particularly for students from disadvantaged backgrounds. Together, these actions can strengthen the overall impact of WBL and contribute to building a more competitive and adaptable workforce.

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