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Informal Learning in Secondary VET: The Case of Hungary and Poland

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Abstract

Context: The growing attention to informal learning in the world of work raises new questions and tasks for vocational education and training (VET) research. Our research focuses on observation-based cooperative learning emerging among VET students, and also among VET students and adults who they observe at work in the family, on TV, and on the Internet. **Approach:** Our focus group is students, preparing for achieving a vocational qualification at ISCED level 3 in VET schools in some practice-intensive occupations, without direct access to higher education. In a Hungarian-Polish questionnaire survey filled by 131 Hungarian and 110 Polish VET students, we explore the extent of informal learning related to observation and cooperation in the life of the searched students.

Findings: Research shows that the different ways of observing others at work play an important role in the process of learning a profession. The findings also highlighted the importance of friendships and trust among students in this age group, and the strong demand for joint practice.

Conclusion: Friendship and the level of trust among students can influence their decisions during training. The results so far suggest that there is greater scope for group work which is favoured by students and so learning from each other in school workshops, than in company settings. The results confirm the intentions of the survey, but further research on a larger sample is needed to draw broader conclusions.

Keywords: informal learning, observation, cooperative learning, vocational education and training

1 Introduction

Since the pioneering work of Knowles (1950) and Coombs (1974), various interpretations of informal learning have emerged. The European Commission's Memorandum on Lifelong Learning (2000) played a significant role in recognizing the importance of informal learning at the educational and policy level in European countries (Stéber & Kereszty, 2015). Accounting for and acknowledging prior knowledge of informal and non-formal learning are pressing issues in educational research and development. Due to the debates surrounding the interpretation of informal learning, we adopt a broad understanding of the term in this study.

Our focus is on the lower branch of secondary vocational education and training. In practice-intensive occupations, learning the specific work tasks and preparing for their mastery can occur in formal, non-formal, and informal learning settings. Therefore, our research examines



observation-based cooperative learning, among vocational students and the individuals they observe while striving for a vocational qualification at ISCED level 3.

Among the various approaches and definitions of informal learning, we emphasize the work of Werquin (2010). He argues that informal learning is unstructured, lacks defined learning objectives, occurs unintentionally, has an unknown duration, and does not lead to formal qualifications. It encompasses cognitive practice and mastery, including observing and assisting in task-related operations. This involves performing and practicing tasks collaboratively, discussing and planning the task, allocating responsibilities, and evaluating the results. In our research, particular importance is placed on observation and task assistance based on this broad definition.

1.1 The theoretical background to the topic under study

The Connectivism Learning Theory, Situated Cognition, and Social Learning Theory inform this research.

According to Connectivism Learning Theory, learning occurs through various forms and pathways, including communities of practice, personal networks, and work-related tasks. (Siemens, G. 2004, 2018). Building connections and expanding personal networks facilitate the acquisition of new knowledge. The theory highlights the influence of social media and online collaborative tools, particularly among the „digital native“ or „net generation“ of students (Siemens, 2004, 2018; Downes, 2010).

Situated cognition emphasizes learning within contextual situations. Students gain knowledge through observation and practical experiences, emphasizing the importance of relationships and interactions with others to foster understanding. Bandura's social learning theory, focusing on learning through modelling and imitation, also provides theoretical support for studying learning from others (Brown et al., 1989; Lave & Wenger, 1991; Billett, 1996; Bandura, 1986).

Boschma (2005) identifies five dimensions of proximity—cognitive, organizational, social, institutional, and geographical—that are crucial for learning between partners. Learning from each other requires at least one of these dimensions to be met. Similarly, Lengyel (2012) suggests that the further apart two partners are from each other on the social network, the more difficult they are able to learn from each other.

1.2 Scope, sample and conditions of the study

A Polish-Hungarian survey is investigating observation-based cooperative learning among vocational students and those they observe. The study aims to determine the presence of this learning type in the lives of vocational students. The survey targets young students in a 3-year apprenticeship program, obtaining an ISCED level 3 qualification, without direct access to higher education. Their successful job placement after the training is crucial, emphasizing the importance of practical skills for meeting labour market expectations.

In spring 2022, a survey was conducted in one Hungarian vocational school and four Polish vocational schools, focusing on students in the 3-year program. The choice of schools was influenced by specific circumstances, such as a nationwide teachers' strike in Hungary and the task of accommodating Ukrainian refugee children in Polish schools. Despite these challenges, the survey took place in schools with personal familiarity in both countries¹. However, this

¹ We received great help in the Hungarian survey from Alexandra Dorogi, PhD student teacher. In the Polish survey we had help from headmasters and teachers of surveyed schools. We would like to thank them for their work.

choice of study sites limited the original plan of surveying students with the same qualifications or qualification groups in both countries.

The completed survey included responses from 241 vocational students, with 131 from Hungary and 110 from Poland. In Hungary, the sample consisted of one school with students from various qualifications including construction, commerce, catering, and social sectors. In Poland, the sample was more diverse, with students from four schools representing eight sectors such as mechanics, food, hairdressing, cosmetics, hotel, catering, tourism, automotive, mechanical, construction, wood, and furniture².

Significant gender differences were observed between the two countries, with the Hungarian sample having nearly equal proportions of female and male students, while the Polish sample had a significantly lower proportion of female students. Most students in both countries were in the 15-17 age group, but the distribution across grades differed. The Hungarian sample was relatively evenly distributed across grades, while the Polish sample was predominantly composed of 9th-grade students.

The Hungarian school was located in a deprived area in the eastern part of the country, while the Polish sample included schools in both urban and rural areas, with two schools in Krakow and two in rural locations. In terms of residence, the Hungarian sample had a similar proportion of students living in towns and villages, while the Polish sample had almost twice as many students from villages compared to towns. A significant proportion of students in both countries travelled to school daily, with approximately 80% in the Hungarian and just over 50% of Polish students. In the Hungarian sample, a small percentage (4%) of students lived in dormitories, while none of the Polish students resided in dormitories.

In both countries, there is a similarity in the parents' job status among the surveyed students. Approximately half of the students have both parents working, with a slightly higher percentage in Poland, although the difference is insignificant. In over 45% of the families, one parent works in a registered job and receives a regular salary. However, a small percentage (3%) of families face a difficult social situation where neither parent is employed.

1.3 Methods of the research

The survey consists of 37 questions and is structured around five main themes, including: 1) Reasons for choosing a profession; 2) Non-formal elements of vocational learning such as observation, communication, and help; 3) Influences of TV, internet, role models, and famous people; 4) Satisfaction with school achievements and training preferences; and 5) Leisure time spent with friends and on the internet. The research focuses on informal learning through the observation of adults at work, watching professional programs, and collaboration among students. The majority of the questions are closed-ended with intensity-related and multiple-choice options, while open-ended questions are used for personal information and preferences. The term „vocational learning“ encompasses the broader scope of vocational education and training (VET). The survey was self-completed.

2 Results of the research

2.1 The interpretative framework of the survey

We include data from both countries to highlight the significance of the topic and increase the sample size. The comparison between Hungary and Poland is primarily used for contextual purposes and to provide an understanding of how the samples from the two countries differ or

² However, some professions in Polish sample were represented by single persons, therefore only results relating to qualifications represented by more students were included.

align with each other. It is important to note that drawing broader conclusions from the comparison would be misleading due to several factors: the small sample size, the varying social backgrounds of students, the different professions studied, the exclusive representation of students from one school in Hungary, and the predominance of 9th-grade students in the Polish sample.

Any significant differences between the two countries were highlighted, while similar response patterns did not include statistical indicators. This pilot and exploratory research aimed to uncover similarities and connections, without strong prior assumptions about country differences.

2.2 Answers to the survey questions

Motivational aspects in profession-choice

A crucial research concern is the factors considered by young people when selecting a profession. In both countries, interest emerged as the primary motivator, cited by the majority of students. Good earning potential ranked second in importance. Other studied aspects varied in significance. For Hungarian students, proximity and geographic accessibility of vocational education and training were the least influential factors in profession-choice, whereas for Polish students, the recommendation of friends held the least significance.

Practicing the knowledge learned in the school

We assume that an effective way to apply school knowledge at home is by assisting with household tasks related to one's profession. The survey revealed that the majority of students in both countries engage in such activities. Over 90% of Hungarian students and nearly 90% of Polish students help at home. Among Hungarian students, slightly more than 50% help frequently, while almost half of Polish students also reported frequent involvement. Additionally, a significant proportion of students assist friends and acquaintances outside the family when needed. Approximately 75% of Polish students and over 80% of Hungarian students stated they provide help outside the home. Notably, more Polish students reported frequently assisting friends and acquaintances compared to Hungarian students.

Observing adults and learning from them

The research explores the intriguing topic of observing others' work and the subsequent informal learning that takes place. We assumed that this age-old yet crucial form of learning is present in students' daily lives. Interestingly, we discovered notable differences between the two samples. Less than 5% of Hungarian learners indicated never observing adults at work, whereas over 10% of Polish learners gave the same response. There was a significant disparity in the frequency of observing adults at work between the two samples, with a significantly higher proportion of Hungarian students reporting frequent observations. Related to this, we wanted to know whether, by observing adults at work, students were able to learn something that would help them to make or repair something more easily, either alone or with help. Most students think that they learn from adults very often in this way. In this case, the rate of „often” is higher for Polish students. Only a small percentage of students answered that they never learned anything in this way.

Social connections – discussing professions and working together

The role of social connections, such as friendships and schoolmates, in vocational informal learning is significant. These connections involve discussing the studied profession and collaborating on tasks. Our research reveals that a majority of students, approximately 60% of Polish and nearly 70% of Hungarian students, have numerous friends and schoolmates with whom they discuss their profession. Moreover, they enjoy working together, with over 40% of Polish

and over 50% of Hungarian students expressing a strong preference for collaborative tasks. Less than 10% of students do not enjoy working on tasks together, indicating a strong desire for joint learning within their chosen profession. Additionally, in both countries, a significant portion of students wishes to have more group-based tasks during practical sessions. Around two-thirds of Hungarian students and almost 60% of Polish students express a desire for more collaborative exercises.

Roles in the working group – choices related to trust

In collaborative learning and group tasks, the decision to assume a leadership or follower role is significant. The research indicates that students generally prefer to be followers, taking on task-performing or ordinary team member roles. Polish students show a slightly higher willingness to be leaders (nearly 40%) compared to Hungarian students (just over 30%). The importance of social and friendly relationships is also evident. Both Polish and Hungarian students prefer seeking help from a friend rather than the most skilled classmate. This highlights the specific role that friendship and trust play in informal learning.

Studying or doing homework with classmates

A crucial question in the survey focused on studying or doing homework with classmates outside of school. The results indicate that nearly 70% of Hungarian students and approximately 55% of Polish students often engage in studying together, preparing for lessons, exams, tests, or completing homework together.

Regarding studying or doing assignments with classmates, there are notable differences between Hungarian and Polish students in the sample. Generally, Hungarian students show a stronger preference for cooperation, with less than 5% of them never studying together. On the other hand, over 12% of Polish students tend to be more individualistic and prefer learning on their own. However, these findings still highlight the significant importance of this form of informal learning in vocational education for young people.

Student's opinions on broader influences (role models, friends, TV, internet) and pastimes

Regarding the impact of role models and the Internet on learning, there are some differences between Hungarian and Polish students. It was found that a minority of students are influenced by these factors, with slightly higher rates in Poland. In terms of having role models, almost two-thirds of Polish students reported having them, while less than 40% of Hungarian students had role models. Similarly, the question about following famous people yielded similar results for both countries.

In the survey we asked students about their favourite TV programs or internet movie series related to their profession. Polish students showed a higher interest, with around 50-60% answering positively, while Hungarian students had a lower interest, with over 60-70% answering negatively. The difference between the two countries' data is significant, particularly regarding internet movie series.

There is a slightly smaller difference between Hungarian and Polish students regarding their favorite websites. Approximately 50% of Polish students and nearly 40% of Hungarian students mentioned having favorite websites that are both interesting and useful for their chosen profession.

Looking at time spent with friends and online, as confirmed by several previous surveys, it is evident that students spend a significant amount of time on both activities. Polish students tend to spend more than 2 hours a day with friends outside of school on weekdays, according to the survey data. Conversely, Hungarian students dedicate slightly more time to internet usage and online chatting, with approximately 60% of them spending over 2 hours a day on weekdays engaged in these activities.

Answers to open questions³

The survey included some open questions about the wider influences of role models, friends, TV, and the internet. There were relatively few respondents who answered the open questions in both countries. Many of those who did answer stated „I do not have“ or „I do not know,“ and only a portion provided specific answers with examples. In the Hungarian sample, the highest response rate was related to role models (33%), while the lowest (10%) was related to favorite internet film series connected to the studied profession. For Poland, the highest proportion of specific responses (45%) was for favorite famous person, and the lowest (14%) was for favorite website related to the profession.

Among those who reported having a role model, most mentioned family members, with parents being the most frequent in both countries. Additionally, various individuals such as footballers (Messi, Neymar, ...), a cook, a singer, teachers, Elon Musk, and Hungarian Prime Minister Viktor Orbán were mentioned in the Hungarian sample. In the Polish sample, role models included an IT teacher, Sentino (rap singer), and a friend, also.

A few students mentioned a favorite TV show or TV film that didn't always have a clear connection to the profession. The favorite TV program related to the profession was mentioned by 23% of Hungarian and 37% of Polish students. In the Hungarian sample, almost half (45%) of these mentions were popular Hungarian cooking programs like „A konyhafőnök“ and „Séfek séfé“ (The Chef; The Chef of Chefs). Additionally, students mentioned a Turkish medical-themed series called „The Miracle Doctor,“ the American reality series „Forged in Fire,“ and the educational film series „How Do They Do It?“. In Poland, many students referred to the TV channel TVN Turbo, which features numerous automotive and extreme sports programs but has little relevance to the car mechanic profession. Due to the large number of students studying car mechanics, individual programs mainly focused on cars were mentioned (e.g., the popular UK show „Top Gear“). Therefore, only a few respondents indicated movie series related to other professions, such as „Sharp cutting“ (in Polish, „Ostre cięcie“) about hairdressers.

The low response rate (about 30% in both countries) to the question about favorite internet film series related to the profession could be attributed to the difficulty in distinguishing between TV programs watched on the internet and film series watched online. In the Hungarian sample, almost half of the responses still revolve around cooking, with mentions of Hungarian reality cooking shows. However, there are also medical-themed film series such as „The Mountain Doctor“ and „Emergency in Mexico.“ In the Polish sample, the most significant mention was the TV film series „Budda,“ which is related to car issues but primarily focuses on car racing and the technical aspects of engines rather than car repair. Only a few answers directly referred to mechanics, such as Adam the mechanic.

A small percentage of Hungarian (11%) and Polish (14%) students mentioned a useful favorite website related to their studied profession. The list is diverse and includes internet search sites like Google, as well as social media platforms like Instagram, Facebook, YouTube, and TikTok. Recipe websites and a Hungarian cooking reality show were also mentioned. In the case of Poland, some websites related to the automotive industry, such as „otomoto.pl“ (a platform for selling used cars), were on the list, too.

A significant portion of Hungarian students (21%) and a larger proportion of Polish students (44%) named a favorite famous person whose life they follow and who has influenced their studies. The list includes car racers (Hamilton), footballers (Ronaldo, Messi), actors

³ The survey did not inquire about the availability of pay TV and internet programs, which may vary significantly between the two samples. Therefore, the reported percentages should be interpreted with caution as they may not accurately reflect young people's interests due to potential differences in access to these programs.

(Justin Bieber), Hungarian and foreign chefs, singers, a Hungarian Roma rapper, influencers, streamers, Bill Gates, and Hungarian Prime Minister Viktor Orbán. Two Hungarian students mentioned their professional teachers. In the Polish sample, two actors from the „Sharp cutting“ hairdresser movie series (Andrzej and Tomasz), Budda (the creator and main presenter of „Budda TV“ mentioned earlier), Muran (an MMA and other fighting sports athlete), Sonik, and Kubica (racing drivers) were also mentioned.

Research results on opinions related to satisfaction with learning

The majority of students in both countries are satisfied with their school performance. However, a significant number of Hungarian students (around 80%) and Polish students (around 60%) express a desire to improve their grades in at least one or two subjects. More Polish students think they have good grades but also that they are not able to improve than Hungarians. Very few believe that grades are not important, in both countries.

Workshops play a significant role in the lives of VET students, with more Hungarian students preferring in-school training and more Polish students preferring external on-site training. The difference between the two preferences is significant. Additionally, more than twice as many Hungarian students report they get more help from the instructor in the school workshop compared to external training, while Polish students rate school and external help at similar levels.

Interestingly, there is a notable contrast between the two samples when it comes to the relationship between receiving help from instructors in the school workshop and liking the workshop itself. In the Hungarian sample, there is a decrease in the proportion of students who like the school workshop despite receiving more help, with nearly 15% fewer students expressing a positive sentiment. However, in the Polish sample, the situation is different, with approximately 40% of students finding the instructions from trainers in external workplaces to be more helpful, which is roughly twice as many as in the Hungarian sample.

Participation in vocational study competitions was quite limited among the surveyed students, with the majority not taking part in any competition. However, a significant difference can be observed between the two countries. In Poland, nearly 30% of students participated in a competition, and half of them achieved a good position. In contrast, the Hungarian sample had much lower values, approximately half as large. One possible explanation for this difference could be the geographical variation between the two samples.

3 Conclusions

Observing adults at work was found to be associated with experiencing learning while observing, and with assisting others in performing tasks. Students who enjoyed collaborative exercises and wanted more of them were more numerous, regardless of their profession.

Hungarian learners were more likely than Polish learners to want more joint tasks in the future, but the difference was not significant. Regardless of their role in joint exercises, both Hungarian and Polish students primarily sought help from their friends rather than the most skilled student. The role of friends in learning from each other was considered important, reflecting trust and social relationships. The time spent together outside of school and on the internet and chatting also reflected the role and influence of friends.

Most students did not have role models, except for those who mentioned famous individuals seen on TV, such as chefs in the Hungarian sample or stars in the automotive industry/sport for car mechanic profession in the Polish sample.

We have to consider the limits of our research results. As all students in the Hungarian sample are students at the same school, they are exposed to the same school influences. Their work placements are different, but we could not investigate their differential impact separately in this questionnaire. For the questions on practical work, students were likely to think of both

locations, but our experience suggests that they are more likely to work together only in school workshops. As the Polish sample consisted of four schools with different backgrounds, and the students represented a total of eight professions, the outsourced practical background is even more diverse, but it is also true that group work is more likely to take place in school workshops. In other words, work in school workshops is likely to play a greater role in the process of learning from each other than in work placements.

The study highlighted the importance of friendship, time spent with friends, and trust among young people, which can influence their actions, such as asking for help during group work.

The research provided insights into the informal learning of vocational school students and can help school directors and teachers become more aware of young people's interests in specific forms of informal education. Further research could explore the impact of informal learning on vocational education outcomes and identify the most effective forms of informal learning for developing professional competencies.

The study also served as a pioneering effort in testing the research questionnaire as a tool for studying informal learning among vocational students. However, the low response rate and uncertain responses in question group 4 (related to role models, friends, TV, internet) raise concerns about its viability. Specifically, some questions may have confused students who struggled to differentiate between TV programs watched on the internet, internet film series, and websites that feature them. In the future, these questions should be combined for clarity.

The improved and test survey can be used by future researchers, and the authors' plan is to supplement the results with interviews and additional surveys in the future.

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Biographical notes

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