EXPLORING LEARNING OF VOCATIONAL EDUCATION AND TRAINING STUDENTS IN EUROPEAN COUNTRIES

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ABSTRACT

The paper explores the learning and working activities of vocational education and training (VET) students in seven European countries. The paper finds that i) there are large differences among the countries in the time spent in school, ii) that learners spend very little time studying for school at home, iii) interest in 'academic' school subjects is very low, iv) much time is spent on socialisation and passive forms of learning and v) a large number of VET students are engaged in paid work. Drawing on both information process and social learning approaches the paper recommends that strategies for VET development – curriculum, pedagogy, institutional organisation and pathways – should be informed by a better understand of the perspective of the VET learner as an individual with a range of activities, interests and attachments rather than simply viewing learners as customers or clients for VET provision.

Key words: vocational education and training, learning, teaching, information process learning, social learning

RICERCA SULL'APPRENDIMENTO NEL CAMPO DELL'ISTRUZIONE E DELLA FORMAZIONE PROFESSIONALE NEGLI STATI EUROPEI

SINTESI

L'articolo tratta le specifiche dell'apprendimento e del lavoro degli studenti nell'istruzione e nella formazione professionale in sette Stati europei: Austria, Grecia, Lituania, Lettonia, Germania, Slovenia e Regno Unito (Inghilterra). Le constatazioni principali sono: a) tra gli Stati esistono grandi differenze nella quantità di tempo che gli studenti passano a scuola, b) gli studenti studiano molto poco fuori dalla scuola, c) le aspirazioni riguardanti le classiche forme di apprendimento sono molto basse, č) gli studenti spendono molto tempo libero per le forme passive di apprendimento e per la socializzazione, d) molti studenti nell'istruzione e nella formazione professionale lavorano per soldi. Anche se le constatazioni nell'articolo sono fondate su contesti specifici nazionali dell'istruzione professionale, abbiamo riportato alcune constatazioni universali.

In base alle teorie dell'apprendimento situazionale e informativo-processuale l'articolo propone l'unione di diversi contesti dell'apprendimento classico e situazionale, nonché miglioramenti nel campo delle forme di apprendimento meno classiche. Tutti gli Stati dovrebbero impegnarsi in futuro a instaurare un sistema d'istruzione classica di qualità e più attrattivo per gli studenti. Le materie scolastiche generali, quali la matematica, la lingua materna e quella straniera, hanno, infatti, un ruolo enorme per lo sviluppo della carriera professionale, ma anche per la cittadinanza attiva. Lo sviluppo dei curriculum deve tener necessariamente conto di ciò che gli studenti fanno nel tempo libero e impegnarsi che studino di più dopo la scuola: troppo poco studio influisce sul rendimento scolastico. Lo sviluppo futuro dei sistemi dovrebbe prudentemente tener conto dell'inclusione degli studenti nel mercato del lavoro, del riconoscimento e della valorizzazione delle esperienze lavorative.

Parole chiave: istruzione e formazione professionale, studio, insegnamento, apprendimento informativo-processuale, apprendimento situazionale

INTRODUCTION

Research and policy development in the area of vocational education and training (VET) systems are looking at how systems are contributing to competitiveness and economic growth by providing specific and generic competencies and, second, promoting social inclusiveness (Grigić and Pavlin, 2013, 8). These developments assume there is a need to make education systems more flexible due to globalisation pressures and economic crisis. Therefore various VET stakeholders are together with employers increasingly creating links that validate, certify and recognise various teaching and learning activities (Werquin, 2010).

Another driver for strengthening research into VET students' learning processes is pluralisation and hybridisation of occupations and professions that gravitate towards different educational structures (Pavlin et al., 2010). These processes generate increasingly flexible relations between formal qualifications and acquired skills, occupational regulations and employment protection. In practical and theoretical terms these processes relate to credentialism and social protection, over-qualification, vertical and horizontal mismatches, along with phenomenon of employment and employability. In simple words this also means that some occupations that have traditionally required secondary level of education (ISCED 3-4) might over time require graduates with higher levels of education, while on the other hand other occupations might lower levels of learning experiences.

Learning in school, free time and at work are key factors of school and career success and generate individuals' social and employability capacities (Allen et al., 2011; Deželan et al., 2014 ; Živoder, 2013). Accordingly, evidence about learning processes are vital for designing curricula in terms of their labour market orientation, congruency with industrial sectors, and further education and occupational segments. The concept of school and career success also fits well into these policy debates partially as educational responses to economic crisis. In this context, VET policies try to improve level of acquired students' competencies, promote social inclusiveness, raise the general status of VET, promote recognition of prior learning and apply student-centred teaching principles.

Building on the above mentioned issues this paper explores learning, teaching, free-time activities and working of VET students in seven European countries (Austria, Germany, Greece, Latvia, Lithuania, Slovenia and United Kingdom) which formed the consortium of the 7EU-VET project (2014-) that generated detailed methodological approach to understanding and comparing various VET systems. The main goal of the paper is to explore and compare different learning activities of VET students in a country comparative fashion, and on this basis offer recommendations for research and policy development. In the next section we first describe theories of information process and social learning which present the main conceptual and interpretative framework of the analysis. In the third section we describe the methodology of data analysis, and particularities needed to be considered when comparing VET systems internationally. On this basis we present the main results.

THEORETICAL FRAMEWORK: INFORMATION PROCESS AND SOCIAL LEARNING

Several authors studied how teaching and learning affect development of generic and professional competencies (see Pavlin and Judge, 2010). Learning and competence development is taking place in differently formalised environments (Werquin, 2010). When we observe the learner as an agent systemised learning results in different forms of knowledge: *know-how, know-what, know-why* and *know-who* (Pavlin and Svetlik, 2005). These forms of knowledge were under various names over the last decades reflected in different approaches to studying learning. For example, cognitive approaches that focused mainly to individual and mental processes and behavioural approaches that explored more the relations between individuals, groups and their environment (e.g. Benjafield, 1993; Zimbardo, 2006). On this basis Dierkes et al. (2003) describe information-process and situation learning paradigms in the context of traditional disciplines such as are psychology, sociology or management. Nonaka and Takeuchi (1995) described information process learning with related term of internalisation and situation learning with socialisation. They claimed that best learning results can only be achieved and observed with both learning approaches.

Principles of information process learning approaches

Cognitive or information process approaches of learning are relevant for describing learning in formalised settings. They emerged at the beginning of 20th century focusing to mental processes of individuals which are hard to be observed directly. They found that behavioural changes are caused by learning and knowledge changes. Researchers in this paradigm particularly looked at which stimuli empower knowledge recall and behaviour, and how information can be forgotten. This approach led to a focus upon memory, perception and thinking as a consequence of processing external information, past experiences and the nature of intelligence (Anderson, 1995). Researchers in this tradition observed individuals as biological computers for processing information, considering how information from the environment is processed into individual mental schemes (Zimbardo, 2006). Davenport and Prusak (2000, 4) identified four modes how information is processed into knowledge: a) comparison of similarity of new information with the existing one; b) consequences

and implications that new information has for decision making and acting, c) relation between new information with the existing one and d) dialogue, opinion and communication on this new information with others.

Accordingly, human beings are perceived as a system that codes, stores and revitalises information and mental cognition can be viewed as a sequence of steps in which abstract entity is processed (Benjafield, 1993). The process includes various kinds of memorisation: sensor memory, short term (or working memory) and long term memory. An entry system of memory is lead by control processes that manage how information is processed through the system. Coding of information include the process of perception and interpretation needed for shaping external stimulus into cognitive images. How well is certain information or event coded and storage determines how it can be later re-called from memory and which factors will affect this process (Roediger and Guynn, 1996).

How information is recalled from memory depends on every particular individual. The information process approach studied individual differences used for learning. They discovered large differences in learning styles, abilities and approaches as well as in capacities and knowledge. Some individuals prefer making conclusions on the basis of holistic information, while others prefer details (Bors and MacLeod, 1996).

The information-process learning paradigm has been challenged on the grounds that it has become educationally less important for students to memorise large amounts of information. Due to better access to information processing technology traditional forms of learning appear to be less valuable. On the other hand, information-process learning forms or *"know-what" (and to certain extent also "know-why")*, continue to be vital elements of education and support individuals' free time activities, such as are for example health issues or active citizenship, as well as their professional work. Therefore, it would be premature to wholly remove traditional learning processes from VET.

Principles of situation learning approaches

Situation learning approaches emerged as a radical alternative for conventional cognitive approaches of knowledge and learning. Following claims of Vigotsky (1977), that learning is social activity taking place in certain cultural environment, researches of this paradigm claimed that new knowledge is situationally determined (e.g. Handley et al., 2007). Moreover, in this paradigm, learning is determined not only by cultural context but also by its environment in terms of concrete network and organisation (see Fink Hafner and Deželan, 2014). In this way, individuals learn particularly through observation and repetition (Yang, 2004). As claimed by Anderson et al. (1996, 5), the prevailing principles of situation learning are the following: a) processes are

based on the concrete situation in which they occur, b) knowledge cannot easily be transferred between different working and learning contexts, c) learning that is based on abstraction has limited value, and d) learning is always placed in the complex social environments. In particular, there are large differences between learning in school and learning at work.

Lave and Wenger (1998) studied how participation in the social context impacts upon individuals' identity. In addition, participation and learning in certain social context creates social norms and behaviours (Handley et al., 2007). These norms are applied to all members of community, work-based community or networks of practice. Wenger et al. (2002) coined the term community of practice in which he points out the importance of 'knowing the praxis'. In such practices, participants learn from each other and develop common identity. Abma (2007) even stated that both terms – community and practice – can not be viewed in isolation because of their interrelated nature. Wenger claims, that community of practice is based on the processes of collective learning creating common identity.

Situation learning can also be labelled as a practical learning because new knowledge and competencies are acquired in interactions with others in concrete situations. In summary, four main premises for future research in this area (Pawlowsky, 2003, 75–81):

- *first*, it is important to study differences in various knowledge levels: individual, group, organisation and inter-organisation. In particularly, it is important to stress difference between individual and group learning, as on the individual level there is very limited potential to form identity;

- *second*, within learning on the organisation level, there are different processes as for example condensing output information, acquiring knowledge, transfer, interpretation and memorisation. One should learn how individual learning responds to these group processes;

- *third*, knowledge and learning can take different forms , e.g. cognitive, cultural and action learning;

- *fourth*, learning processes can substantially vary in their complexity, as for example described by Argyris and Schön (1978) with their concepts of single and double loop learning.

Tension and interrelation between information-process and situation learning offer an important observation point in the education environment, particularly in VET which is in its definition practically oriented. In the school environment practical learning complements theoretical learning if the practical part of curricula is transferred into a concrete environment that simulates real work. In this way we can assume that in VET both forms of learning improve acquisition of generic and professional competences. Anderson et al. (2000) claim that both approaches should not try to challenge one

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another but should rather seek complementarity. Authors (*ibid.*) agree that more attention should be paid to making links between classroom learning, free time and work activities. However, many researches still favour one of the two approaches. Those who prefer information process learning tradition observe learning as an individual process in which person is responsible for own learning outcomes. On this view formal education offers superior form of learning with memorisation and reproduction of what has been learned as key processes. Other researchers, who favour a social learning approach believe that learning should take place in interpersonal relations and particular social situations, organisations should take all means necessary to cultivate community of practices with the formation of individual identity.

Implications of different theoretical approaches for VET systems

Information process approaches are more oriented towards academic or classical learning and traditional teaching approaches, and social learning more towards practical and problem based learning processes. However, the analysis above suggests that VET systems should seek to integrate both forms of learning together in order to achieve the full range of learning outcomes that are judged desirable. (CEDEFOP, 2013). The analysis that follows reveals how the neglect of one or the other form of learning may lead to incomplete outcomes.

Against the background of these two different kinds of learning process, our research set out to examine:

- Which are VET students' motives and aptitudes for school learning, and how do they acquire knowledge after school?
- How much time do they learn at school and afterwards? How do VET learners spend their free time?
- How do VET students perceive teaching modes and the work of teachers and trainers? Which are the differences between learning in the classroom and in training environments?
- How do they perceive school facilities and learning materials?
- How are learning and teaching modes related to overall satisfaction and motivation with VET curricula?
- Do VET learners start working for money already during their secondary education?

These questions generated evidence of how different teaching and learning modes impact upon VET students' school success, acquired competencies and to what extent curricula contribute to their development. Moreover, knowledge on learners experiences viewed from both learning traditions help to explain VET students' career aspirations in terms of future career orientation.

This paper addresses only some of segment of above mentioned issues. In the paper, we observe which ac-

tivities supported learning in more traditional learning environments where the prevailing mode of learning is information process and also look at learning in work and during free time, where situation learning approach is more relevant. Before, setting out the survey findings we give a short overview of plurality of VET systems in Europe, which is an important contextual point for understanding learning.

METHODOLOGY AND COMPARABILITY OF VET SYSTEMS

The empirical part of this paper is based on data of the 7EU-VET project (short for "A Detailed Methodological Approach to Understanding VET Education *in Seven European Countries*"). The goal of this project's large scale survey was to explore how VET systems prepare learners for short- and long-term careers. This goal was partially based on young people's perceptions of VET systems and how they see their future possibilities of employment, career building and mobility. It incorporates the following initial questions leading the project: a) what are young people's perceptions of VET systems and how do they see their future possibilities of employment, career building and mobility?; b) how is ICT implemented in vocational education programmes?; c) how efficient and successful are systems of advising and informing?; and d) are VET systems across countries comparable and flexible enough to collectively respond to the changing needs? On this basis project aimed to develop a methodological framework for broad comparison of VET systems in different European countries: Austria, Germany, Greece, Latvia, Lithuania, Slovenia and the UK (England). However, this attempt is subject to several limitations that needed to be considered when comparing the results on cross-country bases. Some of the most important examples are related to differences in:

- *high and low vocational countries*: Germany, Austria and Slovenia, for example, have high proportions of cohorts taking vocational programmes at the ISCED 3 level, while proportions are low in other countries;
- *tracking*: tracking starts early in Austria and Germany – at age 10. (In Lithuania and Latvia there are vocational lower secondary programmes);
- *apprenticeships*: the dual system programmes in Germany, Austria and training provider programmes in the UK have a highly work-based component, while in other countries they are much more school-based;
- *types of programme,* which is related to the difference between duration, degree of specialisation or VET providers;
- the role of transitional programmes for young people who cannot progress directly into ISCED 3 vocational programmes;

- *diversity and accessibility of vocational institutions and diversity of vocational programmes*; and
- *permeability between VET and higher education*.

Large differences can be found also when comparing "7EU VET countries" with other EU countries. Following the Special Eurobarometer Survey the best quality learning has been perceived in countries such as Malta, Finland, Austria or Germany while low results have been found for Greece, Poland, Slovenia, Latvia or Lithuania (Special Eurobarometer 369, 2011, 33). Within the large scale survey of the 7EU VET project, the consortium surveyed roughly 17,600 VET learners. The target population of 7EU VET was defined as 17–18-year-old pupils in initial VET, as this population intersected most VET programmes in 7 EU countries. This population was found in a variety of VET institutions in the surveyed countries. Two-stage random sample design was applied to the 7EU-VET study and the survey has been done either online or with a paper-and-pencil questionnaire, instruments for both modes were developed (Dahmen, Neuert and Fuchs, 2012). Average response rates (considering school level, class level, and student level) within the range of 55 percent to 70 percent were reached in most countries (*ibid.*).

In the paper we build upon results related to VET students' motives and aptitudes for school learning, learning after school, spending their free time and working for money.

RESULTS

In this section we explore how much time VET students learn in school and at home and what are their key learning drivers. We also explore to what extent students are engaged in paid work. As described in the theoretical section we are aware that any type of social engagement is associated with different learning activities that contribute either to the development of vocational or generic competencies. As described earlier in discussion on learning approaches, school-based learning is best observed as information process learning and is associated with the process of reflection, while the process in practical learning or working is related to participation which is described as social learning.

Spending time at school and learning outside school

According to 7EU VET data, VET students in the observed countries spend in school on average 29 hours. The most time in school is spent by students in Austria, Latvia and Slovenia (an average of 34 hours) and the least in the UK (21.6 hours). Male and female students

Table 1: Realised N net sample size

	Realised N net sample size
Austria	2097
Germany	5377
Greece	2396
Latvia	2926
Lithuania	2641
Slovenia	1197
England (UK)	997
Total	17631

Source: Dahmen, Neuert and Fuchs (2012, 62)

spend relatively the same amount of time in school across the 7EU-VET countries, except in Austria, where males spend more hours (37) than females, who spend only 33 hours in school. When we look at the time spent in school by parents' education, we noticed that in Latvia and Slovenia there is no association between the two. On the other hand, in Germany, Austria and Greece students with higher educated parents spend more time in school, while in Lithuania such students spend less time than students with lowly educated parents. In Lithuania and Greece, students with a higher socio-economic status[1] spend a little more time in school than those with a lower socio-economic status, while in Austria, Slovenia, Latvia and the UK students spend approximately the same amount of time in school regardless of their socio-economic status. This means that only in some studied countries more educated parents and those with a higher economic status look after their children better in terms of how they participate in the school curriculum.

Second, we looked how much time VET learners spent on learning outside school. Data show that vocational learners spend little time studying outside of school. In Slovenia, Germany and Greece, over 80 percent of students studied less than four hours per week out of school. Out-of-school study is greatest in Austria (only 60 percent studied for less than four hours) and England (71 percent). In Austria, 10 percent reported that they studied up to 12 hours and 24 percent up to eight hours. More worrying are the percentages indicating students' reports of not learning out of school at all: approximately one out of four VET students do not learn in Greece, Slovenia, Lithuania and the UK. The share of students who do not learn out of school is much lower in Austria.

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1 Estimation on the socio-economic status is based on the question: »Which of the description below comes closest to how you feel about your family's income?«

Table 2: Students spending time learning outside school, by country in hours per week (in percent)

	Austria	Germany	Greece	Latvia	Lithuania	Slovenia	UK (England)
No time at all	10	20	28	12	26	25	25
Up to two hours	23	40	41	41	43	43	22
Up to four hours	26	23	13	23	18	20	23
Up to eight hours	24	12	11	14	8	8	18
Up to twelve hours	10	3	4	5	3	2	5
Up to sixteen hours	3	1	1	2	1	1	2
More than sixteen hours	2	1	1	3	1	0	3

Source: Based on the 7EU-VET project (2014-)

Out-of-school learning is strongly associated with gender: for example, in six of the seven countries males are twice as likely as females to report that they spent no time at all on study outside of school. In England, exceptionally, the relationship was reversed: 30 percent of females and 22 percent of males reported they did not study out of school at all.

Expectedly, study time outside of school is in some countries associated with school success (7EU VET team standardised nationally specific grading schemes using the "modified Bavarian formula") but unexpectedly not so much in others. Students reporting low grades also report lower study times outside of school across all countries except Germany and the UK. In some countries, for

Table 3: Students spending time learning outside school, by country and school success in hours per week (in percent)

	Austria	Germany	Greece	Latvia	Lithuania	Slovenia	UK (England)
Low grades							
No time at all	10	19	35	13	30	29	27
Up to two hours	26	41	41	43	46	46	25
Up to four hours	28	22	11	23	14	17	23
Up to eight hours	18	11	9	13	7	6	15
Up to twelve hours	13	4	3	4	2	1	5
Up to sixteen hours	3	1	1	1	1	1	2
More than sixteen hours	3	1	0	2	0	0	3
High grades							
No time at all	10	19	13	4	15	19	23
Up to two hours	21	40	39	23	39	40	20
Up to four hours	26	23	20	22	27	24	23
Up to eight hours	27	11	14	26	11	9	21
Up to twelve hours	10	4	6	11	4	4	5
Up to sixteen hours	3	2	3	5	2	3	3
More than sixteen hours	2	1	4	9	2	1	4

Source: Based on the 7EU-VET project (2014-)

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example Greece, Lithuania and Latvia, the effect associated with differences in grades can be relatively large, for instance, lowly graded students were twice as likely as highly graded students to report they did not study at all outside of school.

It is not easy to explain why the relationship between time learning outside school and school grades is observed in some but not all countries. It is possible that in Germany and the UK the programmes are designed in such a manner that additional study outside of school do not contribute to learning achievement, or it is not expected VET students learn after school: in Germany much of the learning time has the character of social rather than informational whilst in the UK the culture of Further Education colleges does not, in general, support homework. Vocational courses average only 22 hours per week and students are often committed to extensive part-time employment.

Motives shaping the learning behaviour of vocational learners

In this section, we explore which factors shape the learning behaviour of vocational learners across the seven countries. Multiple motivational factors were investigated such as, for example, striving for marks (attainment), seeking to understand (intrinsic satisfaction), seeking to impress teachers, seeking to impress employers or keeping up with fellow pupils. The findings suggest that differences in motivation are associated with different countries and can be further explained by more than one possible factor, for example, the character of the institutions, their performance, and cultural norms.

As it can be seen in Table 1, students in the UK are most likely to identify particular motivations (around 70 percent), followed by Austria and Germany (around 50 percent) and with the lowest share in Slovenia (30 percent). In all countries except Lithuania top three incentives expressed by students are importance to make good impression on potential employer by achieving good grades, interest in practical subjects and importance to fully understand what they need to learn. For Lithuanian students the highest ranked incentives are interest in practical subjects, keeping up with their fellow students and importance to fully understand what they need to learn. Students in Austria, Germany, Lithuania and Slovenia least often agreed they enjoy learning, while in Greece, Latvia and the UK the least agreed on incentive was interest in general subjects.

Interest in practical subjects and understanding of learning material is for VET students also one of the most important learning incentives (intrinsic motivation). Higher achieving students reported higher levels of motivation with respect to almost all of the motivation factors, particularly related to 'striving for highest possible marks', 'a commitment to full understanding' and 'interest in general subjects'. Among socio-demographic factors, socio-economic status was found to be the most important element for study behaviour. In every country except the UK, female learners are more likely than

Table 4: Students' incentives towards learning, by countries (in percent)

	Austria	Germany	Greece	Latvia	Lithuania	Slovenia	UK (England)
I strive for the highest possible marks.	59	62	26	38	40	35	78
It is important for me to fully understand what I have to do/learn.	70	70	50	58	44	51	82
I want to make a good impression on my teachers by achieving good grades.	36	38	32	36	27	21	79
I want to make a good impression on potential employers by achieving good grades.	72	81	46	52	34	38	87
I want to keep up with my fellow pupils.	45	48	23	32	45	15	74
I enjoy learning.	10	10	27	26	23	7	69
I am interested in practical subjects.	68	68	64	64	59	58	81
I am interested in general subjects (e.g. maths, foreign language)	26	24	15	22	28	19	35

Source: Based on the 7EU-VET project (2014-)

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males to strive for the highest possible marks. Similarly, learners from Austria, Germany and the UK are considerably more likely to report that it was important for them to understand what they have to learn; females in every country are more likely to report that they wanted to fully understand what they were supposed to learn. An interest in practical subjects was the most universally important motive for students from all seven countries (60–70 percent of students agreed in every country). These findings are consistent with the view that motivation is multi-dimensional and that some dimensions are associated with national conditions.

Expectedly, we can notice higher achieving students (students with high grades) report higher levels of motivation with respect to almost all of the motivation factors across all of the countries. Three types of motivation had a significant association with levels of achievement in all of the countries: 'striving for highest possible marks', 'a commitment to full understanding' and 'interest in general subjects'. Learners with an above-average socio-economic status were more likely to report that they were strongly motivated across almost all of the different dimensions of study behaviour in some but not all of the countries. Socio-economic status appears to be particularly powerful in the case of Germany and the UK, with weaker effects in Lithuania, Austria and Greece. Enjoying learning was significantly associated with socio-economic status in three countries: Germany, the UK and Lithuania. Parents' education did not indicate many important differences.

We can conclude that high levels of different kinds of motivation and high levels of achievement are closely associated, although it is difficult to draw any straightforward conclusions on causality. It is possible that some kinds of motivation cause higher achievement whilst others result from higher achievement. The relatively low levels of enjoyment that learners report is a cause for concern given that enjoyment is associated with higher achievement.

Students' time outside education

When we look how VET learners are spending their time outside of education, we see socialising is the single most popular activity: on average, 66 percent of learners spent at least two hours per day on this activity. 35 percent of learners spent at least two hours per day watching TV. 32 percent of learners spent at least two hours per day surfing the Internet (the same proportion reported spending the same time social networking and 17 percent spent this time on computer games) 24 percent of learners spent at least two hours per day exercising, with Slovenian and Latvian students exercising somewhat less than in other countries.

About 15 percent of learners spend more than two hours per day on commuting, while about 22 percent of all learners spend more than 1 hour per day caring for someone else. More time is spent on caring in Lithuania, Latvia and Greece. Reading books is a relatively unpopular activity: across the seven countries, 52 percent of learners said that spend no time at all reading books. Reading books is slightly more popular in Latvia, Greece and Lithuania.

Spending more time on reading books is associated

Table 5: Students spending time outside education (more than one hour), by country (in percent)

	Austria	Germany	Greece	Latvia	Lithuania	Slovenia
Spending time with friends or peers (e.g. socialising)	76	81	87	90	82	80
Reading books	13	15	24	20	23	13
Watching television	59	65	68	56	65	56
Exercising	43	52	49	34	53	42
Social networking	52	54	59	60	43	57
Surfing the Internet	51	52	59	51	57	53
Playing computer games	19	21	39	29	35	24
Doing voluntary work	15	15	14	13	13	14
Doing something creative	20	19	27	27	22	20
Caring for someone else	17	18	24	25	26	17
Commuting from home to school (and back)	42	42	19	41	33	36

Source: Based on the 7EU-VET project (2014-)

with higher grades in all countries except Germany (the question was not asked in the UK). Spending time on computer games is associated with lower grades in all countries except Greece. It is not obvious why spending time on computer games should be associated with lower grades when other leisure activities are not. This relationship merits further exploration.

Conducting paid work

On average, around 20 percent of learners from observed countries spend at least two hours a day on paid employment unrelated to their programmes, which is much more than one would expect. Time commitment to paid employment was particularly high in Greece and Lithuania and relatively lower in Austria and Germany. Students in Greece (63 percent) and Slovenia (64 percent) and Austria (59 percent) are mostly like to report they work in employment unrelated to their programmes. In Lithuania (25 percent) and the UK (37 percent), participation in this kind of employment is much less common.

The balance of work between regular work and holiday work varies: regular work is reported by 31 percent of learners in the UK, 30 percent in Greece and 26 percent in Germany. Holiday work is most popular in Slo-

venia (62 percent), Latvia (46 percent) and Austria (37 percent). The weekly hours of students that work regularly range from 20 in Greece to 16 in Austria – weekly working hours during the holidays are usually shorter. In Austria, Germany, Greece, Lithuania and Latvia employment is associated with gender – males are more likely to have paid employment and, in particular, more likely to work regularly (as opposed to during their holidays). This is likely to be associated with gendered expectations about lifestyle and spending but also with the socio-economic condition of the family.

It is important to stress that doing paid work unrelated to the study programme is associated with socio-economic status: those with an above-average socioeconomic status work fewer hours in all countries (except Lithuania and Greece). This may be partly a consequence of expectations and culture and partly a result of economic need. This finding is confirmed by responses that reveal that in Austria, Lithuania, Latvia and the UK students with a below-average socio-economic status are more likely to work regularly in order to earn some pocket money to help them through school. In five out of the seven countries VET pupils do work for payment: in general one out of four students' works more than 2 hours per day.
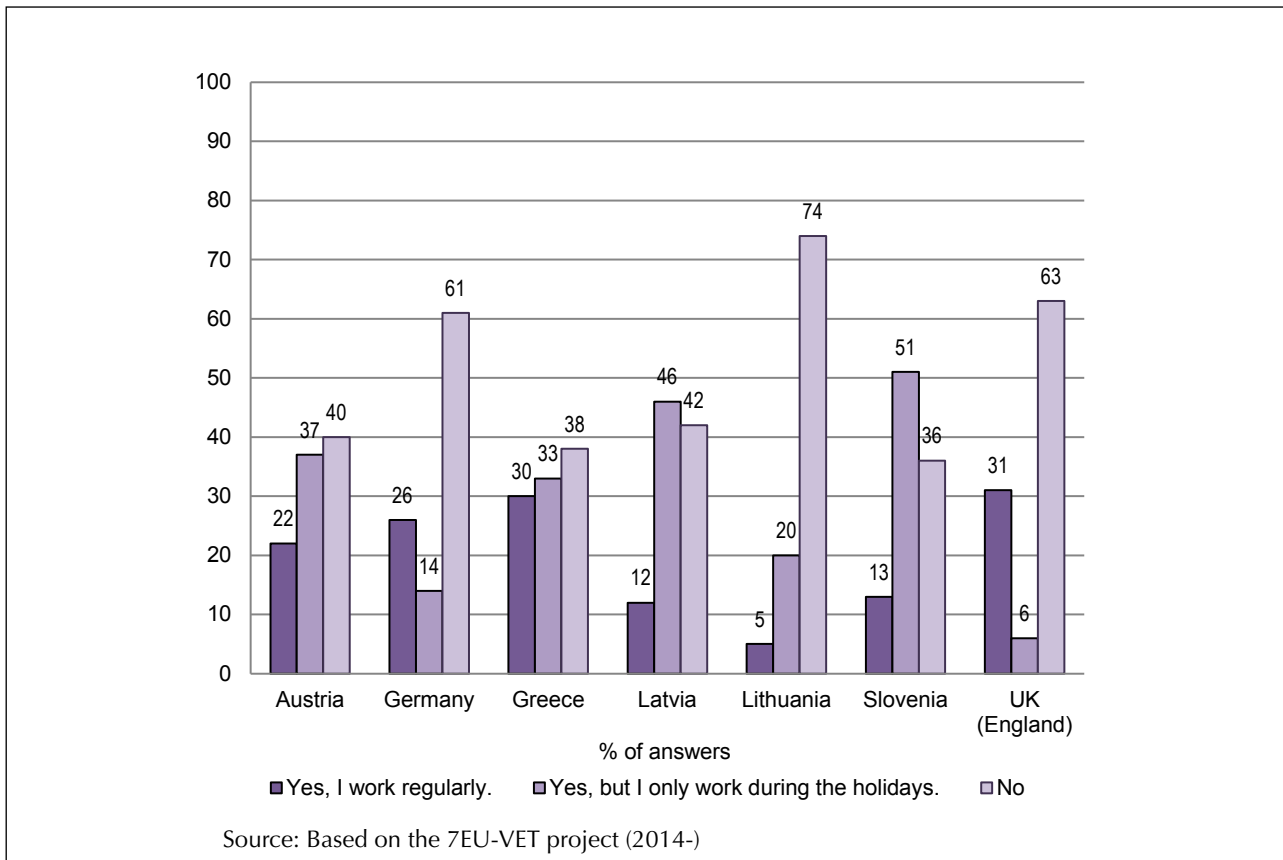

Figure 1: Percentage of students doing paid work, by country

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CONCLUSION

What are the major findings in the paper? We have found there are large differences among the countries in the time spent in school for education, e.g. 22 hours in the UK compared to 36 hours in Austria. From presented results we can see that vocational learners in Europe spend very little time studying outside of school. In Slovenia, Germany and Greece, over 80 percent of students studied out of school less than four hours per week and in general approximately one out of four VET students do not do any out of school learning in Greece, Lithuania and the UK. In six out of the seven countries, males twice as likely as girls report that they spent no time at all on study outside of school. Students reporting low grades also reported lower study times outside of school across all the countries except in Germany and England.

Interest in conventional school subjects was very low in most countries: the most important learning drivers are interest in practical subjects, understanding of the learning subject and interest in the practical subject. Very few VET students reported that they enjoy learning. However, in most countries, enjoying learning was positively associated with school success and socio-economic status. Our results show that striving for the highest possible grades or trying to impress teachers do not serve to motive the majority of learners in most countries. These findings suggest that pedagogies that make learning more enjoyable and that exploit students' interest in their vocational subjects and, in particular, in practice, are most likely to raise student motivation and hence attainment.

In most countries the majority of VET students spend most of their free time with friends, participating in social networks and watching television and relatively little time reading books: on average; only one out of ten students spent one hour or more on this activity. Reading is significantly associated with higher grades in most countries, while spending time playing computer games is significantly associated with lower grades. Approximately every second VET student exercises for at least one hour per day. More than every second VET student spends at least one hour on the Internet and differences across the countries here are very small. In this context, the question arises as to what extent schools and teachers should promote these activities, and what position they should take towards them.

VET students undertake paid work more than one would expect: on average, around one out of five learners worked for money for at least two hours per day and this work was unrelated to their programmes. Regular work was reported in most countries, with the highest percentages in England, Greece and Germany. The average weekly hours of students who worked regularly ranged from 20 in Greece to 16 in Austria – the weekly working hours during holidays were usually shorter. In general, doing paid work that is unrelated to the study programme is associated with one's socio-economic status: those with a below-average socio-economic status worked more hours in most countries. Since the respondents are aged 17 and 18 years, such strong employment engagement in all the countries raises concerns that VET students lack time for learning and exploring other areas of interest: firstly, because this work is not related to their educational programme and, secondly, because there is an indication that they do this for a living. On the other hand, it is possible that this employment may boost other skills and may support the development of networks that support entry into employment.

What recommendations for further research and policy development can be given on the findings of this paper? Even though our findings are based on nationally specific situations, which implies contextual interpretation of results, some universal observations can be drawn. Based on the findings, that VET students in all countries under observation in a very large extent do not like traditional school subjects, such as mathematics and language, the first issue for further research relates to the question how to make these subjects (regarded as key competences for lifelong learning) more attractive and of better quality. These subjects are important tools for learning during schooling and over the life course. OECD PIAAC study has demonstrated that they are associated with better outcomes in employment. Possible reforms might address either the pedagogy used to support traditional subject teaching or the methods of assessment. Attention should be given to learning out of school. Based on results in the paper, we found VET students study very little when they come home and that in most countries this is associated with lower achievement. Limited study outside of school reduces the volume of study time but it may also affect the quality, perhaps limiting the development of autonomy in learning.

Second, we believe that further exploration of the manner in which VET learners participate in the labour market is desirable. There are ethical, legal, social, educational and economic dimensions to this issue. It seems probable that there is a great deal of informal learning going on, particularly in terms of key competences and employability skills. There may be ways in which some of these activities can be recognised and validated. Further, such work experience may help to give access to networks that support entry into employment. However, the extent of this employment raises issues about the relationship between part-time work and VET: in some cases this work may undermine study; VET programmes and part-time work may have no little mutual relevance or create conflicting messages about careers and education. There are also issues about the well-being of learners about the terms and legality of their employment and about the employment strategies of their employers.

Third, VET policies should be based on understanding which the main drivers for learning are. Our results

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reveal that VET learners are intrinsically motivated. They learn because they want to understand learning subject and they enjoy practical experiences. However, this is not the only driver for learning. If we focus on learning as a social process, it is striking that students, for the most part, report that they are not motivated to gain high grades in order to gain approval from their teachers and by contrast they are motivated to gain high grades in order to impress potential employers or to continue their education. It appears then that, viewed as a process of social participation, the driving forces for VET learning are the learners themselves and employers rather than the teachers. This is not to say that the teacher contribution to learning as an information process is not critical or not understood by learners. However, the relatively low rating given by students to the approval of teachers suggests that motivation might be increased by enhancing the way in which employers contribute to VET education, for example, by introducing school-based project learning which is endorsed by employers or by encouraging students to identify teachers as quasi-employers, for example, by simulating work place relationships at school.

In a nutshell, we conclude with a call for improvements in understanding relation between practical and theoretical learning. Past studies related to issues on integration of theoretical and practical learning should be extended to consider the integration of part-time employment and learning and also of learning and free-time activities. Policy could then explore how the full range of activities that young people participate in support achievement, personal and professional growth, and what activities lead to failure. It is important to understand how learning, identity and personal development take place in in-formal settings as this would help to underpin strategies to improve integration. It general, we believe that strategies for VET development – curriculum, pedagogy, institutional organisation and pathways – should be informed by a better understand of the perspective of the VET learner as an individual with a range of activities, interests and attachments rather than simply viewing learners as customers or clients for VET provision.

RAZISKOVANJE UČENJA DIJAKOV POKLICNEGA IZOBRAŽEVANJA IN USPOSABLJANJA V EVROPSKIH DRŽAVAH

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POVZETEK

Članek ugotavlja specifike učenja in dela študentov poklicnega izobraževanja in usposabljanja v sedmih evropskih državah: Avstriji, Grčiji, Litvi, Latviji, Nemčiji, Sloveniji in Združenem kraljestvu (Angliji). Glavne ugotovitve so: a) med državami obstajajo velike razlike v količini časa, ki ga dijaki preživijo v šolah, b) dijaki se izven šole izredno malo učijo, c) aspiracije po klasičnih oblikah učenja so izredno nizke, č) veliko prostega časa dijaki porabijo za pasivne oblike učenja in socializacijo, d) veliko dijakov poklicnega in strokovnega izobraževanja in usposabljanja dela za plačilo. Čeprav so ugotovitve v članku zasnovane na podlagi nacionalno specifičnih kontekstov poklicnega in strokovnega izobraževanja, smo zapisali nekaj univerzalnih ugotovitev.

Na podlagi teorij informacijsko-procesnega in situacijskega učenja članek predlaga združitev različnih kontekstov klasičnega in situacijskega učenja, kot tudi izboljšave na področju manj klasičnih učnih oblik. Vse države naj bi si v bodoče prizadevale vzpostaviti sistem klasičnega izobraževanja, ki bi bil za dijake bolj atraktiven in kakovostnejši. Splošni predmeti, kot so matematika, materni in tuji jezik, so namreč izrednega pomena za razvoj zaposlitvene kariere, pa tudi za področje aktivnega državljanstva. Razvoj kurikulov mora nujno upoštevati, kaj dijaki delajo v prostem času, in si prizadevati, da bi se po šoli več učili: pomanjkanje učenja vpliva na nizke učne dosežke. Nadaljnji razvoj sistemov naj bi s previdnostjo upošteval vključevanje dijakov na trg dela ter priznavanje in validacijo delovnih izkušenj.

Ključne besede: poklicno izobraževanje in usposabljanje, učenje, poučevanje, informacijskoprocesno učenje, situacijsko učenje

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