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THE COMPETENCE-BASED DIDACTIC APPROACH IN INITIAL VOCATIONAL EDUCATION

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Abstract. This article examines a didactic and curricular model that was developed to support the implementation of a competence-based approach, today prevailing in the European (initial) vocational education and training (VET). It starts by presenting contemporary developments in the Slovenian VET, and then continues with a study of some of the underlying pedagogical concepts influencing the contemporary educational practice. The concept of competence, as it relates to the Slovenian VET, is discussed, and the new didactic model is presented in terms of its conceptualisation, realisation and evaluation. The model is built around the concepts of the competence-based didactic unit, and has been produced to help teachers support students in developing the ability to integrate knowledge, skills and attitudes, so that they are able to solve complex and unpredictable professional tasks and challenges. The article concludes with a discussion on the methodological limitations of the evaluation, and its transferability to other contexts.
Key words: competence, curriculum, didactics, educational programming, vocational education and training.

Introduction

The paper examines a didactic and curricular model developed to support the competence-based approach introduced in VET in Slovenia. The model, called the competence-based didactic approach, builds on the concept of competence-based didactic units, and it has been produced to help teachers to support students in developing their ability to integrate knowledge, skills and attitudes, in order to equip them to solve complex and unpredictable professional tasks and challenges. The article first describes contemporary developments in the Slovenian VET, and then provides a study of some fundamental pedagogical concepts influencing contemporary reflections and practice: first, the

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concepts of *izobrazba* (*Bildung*, *obrazovanje*) and vocational *izobrazba* are briefly discussed, and their didactic implications are explained. Second, the distinction between pre-socialist and socialist curriculum conceptualisations is analysed, and post-socialist developments are discussed. It is argued that these are the crucial concepts and historical moments that explain contemporary solutions and tensions regarding the concept of competence in the Slovenian VET and its didactic implications.

Methodologically, the article is a comparative pedagogic study; however, it is centredata single location (Bray, Adamson & Mason, 2007: 365). The study is based onSlovenia, while also presenting comparisons with the pedagogical concepts typical of other locations, notably Germany and the U.S.A. The main aim of the article is to show the complexities involved in both the understanding and the implementation of the competence approach in different contexts. The article will also point out that educational tradition and pedagogical and didactic theory need to be taken into account in order to prevent the negative effects of simplified policy-led instruments.

The Background

During the socialist period, from 1945–1990, VET in Slovenia was provided at schools and was linked to the semi-planned economy (Muršak, 2010). It was financed by the state, which also planned its scope, determined the programs, and provided the conditions for its implementation. With state independence in the early 1990s, a conceptual design for a new VET system for Slovenia was developed. In 1996 new legislation on education was adopted nationally. The reform aimed to introduce an alternating system, of which the fundamental idea was that if the system is to produce high-quality employees, it is essential that trade unions and employers' associations be included as active partners in the development of the educational curriculum. In 1996 two forms of alternation were introduced: one was a typical dual system, while the other was a school-based system of vocational and technical education, which also included on-the-job training. In both cases, the responsibility for education was partially delegated to the employment sector. However, a shortage of apprenticeship positions, and limited interest from the employment sector, caused considerable problems to potential candidates and schools, and the dual system was subsequently abolished by the new Vocational Education and Training Act of 2006 (Kolenc, Hvala Kamenšček & Kelava 2008; Medveš, 2013). The dual and the school systems were thereafter united into a single structure. All students are now entitled to practical training, part of which takes place in a workplace.

The second wave of VET reform reached its peak in 2006 with the passing of the new Vocational Education and Training Act (Pevec Grm & Ermenc, 2007). One of the main elements of the second wave was a comprehensive curricular reform. The fundamental idea was that VET programs should be

more decentralised and focus more on the development of competences (for explanation see below), and therefore programs incorporating professional and practical knowledge have been designed with a modular structure, and an open (decentralised) curriculum, accounting for 20% of the inputs within an educational program, has been introduced. The open curriculum has provided the opportunity for schools to forge links with the local work environment, and consequently to meet regional needs (Pevec Grm & Škapin, 2006). Due to decentralisation, a shift in the role of the teacher in the VET system has also occurred: before, in the centralised system, the tasks of the teacher were largely individualised, limited to the preparation of annual teaching plans and daily lesson plans, to teaching and student assessments; but now, the teacher has become part of a team, carrying new responsibilities for the overall instructional design and implementation of the curriculum, requiring cooperation in various team tasks, and also self-evaluation.

THE RATIONALE: TRADITIONAL EDUCATIONAL CONCEPTS INFLUENCE CONTEMPORARY UNDERSTANDINGS OF THE CURRICULUM

In order to understand the contemporary developments in the Slovenian VET, some fundamental concepts must be discussed: these are the concepts that are culture-laden and therefore rather resistant to change (LeTendre, Hofer & Shimizu, 2003). Generally speaking, the pedagogical tradition in Slovenia draws heavily on the Germanic one (therefore, some German translations are provided below). However, Slovenian education is not a copy of German education; as is true for every national educational system, it is a unique combination of historical developments, international influences, and diversified local responses. One of the fundamental concepts of that tradition is the concept of *izobrazba* (*Bildung*) (Hudson, 2002; Klafki, 2000; Nordkvelle, 2004; Pepin, 1998; Westbury, 2000). They will be elaborated further in the next section, and the concepts of vocational education, educational programming, and preparation of instruction will also be discussed.

The Concepts of "izobrazba" and "poklicna izobrazba"

The concept of izobrazba. Today, the concept of *izobrazba* has two interrelated meanings in the Slovenian pedagogy and education system: firstly, it refers to the process of a person's intellectual, social, personal, and moral growth. The notion is associated with wisdom and moral strength, and it could be translated as educatedness. Secondly, it denotes the outcome of formal education, the level and the field of the education that a person has achieved in the formal educational system (Muršak, 2002: 39). In this case, it could be translated as educational qualification.

The first understanding is more complex, and needs more attention. Its roots can be traced back to the second half of the 18th century in German neo-humanist and idealist philosophy, when *Bildung* began to imply a process of human advancement to intellectual, moral and aesthetic perfection (Humboldt, 2000; Medveš, 1987). The concept of *Bildung* shares the view that knowledge–transmitted to the younger generations in a holistic and systematic manner–is one of the key means of person's formation, cultivation and self-perfection. In other words, knowledge and the process of its acquiring have formative powers.

Klafki has linked the theory of *Bildung* to modern didactic and curriculum issues (Hamilton, 1999; Hudson, 2002; Strmčnik, 2001; Westbury, 2000). He defined *Bildung* as the capacity for reasonable self-determination (Klafki, 2000: 85–107):

> Bildung is understood as a qualification for reasonable self-determination, which presupposes and includes emancipation from determination by others. It is a qualification for autonomy, for freedom for individual thought, and for individual moral decisions (Klafki, 2000: 87).

The following question is thus raised: how can the development of *izobrazba* or *Bildung*be supported by a pedagogical process? In order to tackle the issue of pedagogical practice, didactics builds on the didactic triangle (Herbart, 1835; Peterßen, 1989). The didactic triangle consists of the following three elements, each of which deals with a distinctive set of questions: (1) Content: What valuable knowledge do learners need to acquire in order to reach fundamental educational aims?; (2) Learner: How do people learn and develop their abilities?; (3) The teacher: The teacher is considered a link between the content and the learner. The main questions are thus related to the teacher's role and autonomy. Different didactic theories produce different answers to these questions; however, they all agree that the pedagogical process occurs in the interaction between the three elements. The pedagogical process thus cannot occur if any one of them is missing. Therefore, one should always reflect on what needs to be achieved, including why, how and by whom (Strmčnik, 2001). For those didactic theories that build on the concept of *Bildung*, the first element is fundamentally important: content is selected according to its educative (or formative) value.

The concept of poklicnaizobrazba. Klafki refers to Pestalozzi when concluding that *Bildung* embraces the development of all human powers–the 'head, heart, and hand' (Klafki, 2000: 96). The concept of *Bildung* has, with Pestalozzi, and later especially with Kerschensteiner (Medveš, 1987; Winch, 2006), begun to include also the dimension of practical training as a fundamental component of human development, or self-realisation. Winch (2006) shows that for Kerschensteiner – who influenced the development of the dual system in Germany–the workplace was a central site of moral engagement.

Kerschensteiner's pedagogy influenced the understanding of vocational education in all its periods in Slovenia, and is even today reflected in the way that *poklicna izobrazba* (*stručna naobrazba*, vocational education) has been understood at the curriculum level. The concept of vocational education has two dimensions: on the one hand it refers to the acquisition of the knowledge and skills required to perform a specific vocation, and on the other hand it refers to the systematic acquisition of scientific and general knowledge, equipping a person for further studies, and for active and critical engagement in the society (Medveš, 1999: 11–12). Therefore, vocational education can never be reduced to satisfying only the labour market's needs; it always has to do with learners' formation in the professional, spiritual, societal, and moral sense. The difference between the two above-mentioned dimensions is also reflected in the Slovenian educational system: formal education, with formal VET programs, provides learners with vocational education (including vocational qualifications) and so prepares them for the labour market, for life, and for further education. Due to the two-fold conceptualisation, every vocational educational program delivered in the formal system consists of two parts: a general education part, which includes systematic teaching of general educational subjects, such as mother tongue, foreign language, mathematics, science, physical education; and a vocational education part, which includes professional subjects (today called *professional modules*).

Educational Programming and the Preparation of Instruction

How is the concept of *izobrazba* reflected in the educational programs? Traditionally, the state prescribed educational programs, consisting of an annual distribution of teaching hours for each subject, and the subjects' syllabi (*učninačrt*, *Lehrplan*). Similarly, as was the case in Germany (Westbury, 2000: 16–18), state educational programs in Slovenia also prescribed content for teaching, but the contents were not prescribed 'as something that could or should explicitly direct a teacher's work' (Westbury, 2000: 17). Teachers were professionally autonomous in the sense that they were expected to use the content so that it became educative, underlying is the notion of relative pedagogical autonomy (Hudson, 2002), influencing also the assessment philosophy which was built on the students' continuous formative assessment.

In the case of the US curriculum, teachers are supposed to implement the curriculum, and are thus supplied with 'curriculum packages' (Shkedi, 2009: 834), while, in the case of the German *Lehrplan*, teachers are supposed to *interpret* the curriculum, and are thus supplied with 'curriculum syllabi' (Shkedi, 2009: 834). In order to also support the teachers' reflection, future teachers are trained how to analyse the syllabus, and how to prepare their instruction, based on their syllabus analysis, and on general didactic principles, in effect to fine-tune the national syllabus by defining concrete learning goals

in relation to the content and general didactic principles.The content isthen to be sub-divided into smaller manageable units, didactic strategies defined, educational materials selected, and their own assessment criteria developed. In practice, however, the interpretation was not always of a high quality: teachers' main preoccupation was often to succeed in 'going through' the textbook, which–approved by the state–strictly followed the syllabus.

Traditional academic didactics in Slovenia was, however, built on the concept of *izobrazba*, and emphasised the formative dimensions of the content, and thus also of the syllabi (Strmčnik, 2001): the teacher should use the content in such a way as to make it formative. Despite this, the informative dimension gradually prevailed in the socialist period: the socialist Marxist pedagogy that underpinned the curricula until the late 1980s combined polytechnicism and encyclopedism (Pataki, 1951; Walterová, 1994). The late 1980s gradually brought about changes in societal, pedagogical, and thus also curricular levels: democracy, a multi-party system, capitalism and the free market have become key words in the political and economic arena; while pragmatism /progressivism, cognitivism, constructivism, have become key words in the educational arena. The Anglo-American curriculum theory gained supporters among professionals working in education, gradually bringing a change of focus in program planning: objectives-oriented curricula began gaining ground. In other words, the reforms since the 1980s have been directed towards the more formative dimensions of education (Marentič Požarnik, 2004; Rutar Ilc, 2003). The modern shift to competencies–which we describe below–has implieda return of the formative dimension.

The Development: A Gradual Shift to Objectives-Oriented Curricula

As shown, syllabi in the socialist period were guided by the informative dimension, and the learning content was grouped into discipline-based subjects, these were further divided into broad, discipline-based, didactic units, and again sub-divided into smaller sub-units. Each sub-unit included all three types of aims, but the logic of discipline knowledge was the guiding one. A gradual shift to the formative dimension began in the late 1980s, and reached its peak with the great school reform of the mid-nineties. At the national level an objectives-oriented curriculum planning strategy was adopted, influenced by different learning taxonomies; among them Bloom's taxonomy of learning objectives is the most widespread (Štefanc, 2011, 2012). The focus on discipline knowledge has to some extent been abolished (more so in vocational education), making way for a focus on the development of capabilities. There has again been an emphasis on the cognitive, personal and social formation of students, but this time not prompted by the formative powers of the content, but rather by the formative powers of the teaching methods. Educational psychology prevailed over didactics, learning theories and psychological theories

of knowledge now determined the guidelines for syllabi planning. The fundamental psychological paradigm that underlies the reformed curricula is the cognitive paradigm, not in an exclusive manner, but rather as the main focus that is combined with other approaches, depending on the context (Rutar Ilc, 2012; Žakelj *et al*., 2007).

The national syllabi have become described in detail; and both the informative and formative educational objectives have been articulated in a granular manner. Syllabi are today simultaneously both holistic and granular: on the one hand they include all three broad aims, while on the other hand these are broken down to numerous educational objectives related to particular skills or knowledge claims. We believe that this is the result of combining several influences: their breadth and holistic nature is a historical remnant of the concept of *izobrazba*, and of the centralised approach to planning; while their detailed articulation of educational objectives occurred when centralised planning was coupled with an objectives-oriented approach.

The Concept of Competence in the Slovenian VET System

The development of VET programs has followed the same trends. The difference was that until the curriculum reforms of the 2000s, the VET programs were all divided into three parts: (1) the general education part; (2) the vocational education part; and (3) the 'practice' part. Due to this fragmentation, students found it difficult to use their theoretical knowledge when tackling complex vocational tasks. This experience gave rise to the new curricular reform of 2001; a reform that brought about the introduction of competence-based professional modules (instead of professional subjects) that integrated vocational knowledge with skill formation. The shift to an objectives-oriented curriculum with a psychologically supported focus on skills and capacities development has now been combined with the competence-based approach which aims to bring school closer to the needs of knowledge economies.

Up until these contemporary changes in curriculum conceptualisations, syllabi included learning content that had been chosen and organised according to what Muller (2009) refers to as 'conceptual coherence'. Conceptual coherence refers to 'the "epistemological core" of the discipline, [… it presumes] a hierarchy of abstraction and conceptual difficulty' (Muller, 2009: 216). Muller speaks of vertical curriculum, the adequacy of which is internally guaranteed. But with the combined shift to objectives-oriented and competence-based approaches, conceptual coherence has given way to what Muller (2009) calls 'contextual coherence'. Contextual coherence refers to the curricula that 'are segmentally connected, where each segment is adequate to a context, sufficient to a purpose' (Muller, 2009: 216). Muller speaks of a segmental curriculum, the adequacy of which is externally guaranteed. He continues to compare the implications of both types of curricula (Muller, 2009: 216) as follows:

> First, the more vertical the curriculum and the more crucial is conceptual coherence, the more sequence matters. Later elements depend upon earlier elements first being grasped […]. The more segmental the curriculum, on the other hand, the less sequence matters; what matters is coherence to context, where external requirements and constituencies legitimately take a greater interest in curricular focus, content and adequacy. Secondly, […] one might say that conceptual coherence curricula are regulated by adequacy to truth (logic); contextual coherence curricula by contextual adequacy, to a particular specialised form of practice.

The introduction of the concept of competence was arguably the most influential change. At the upper secondary level the following definition of competences was introduced and used as a basis for the development of VET programs:

> Competences are developing and demonstrated abilities of individuals which enable them to act creatively, efficiently and ethically in complex, unforeseeable and changing circumstances in professional, social and private life (Pevec Grm & Ermenc, 2007: 23).

The development of competences involves:

- developing skills, expertise and procedural knowledge–the ability to solve problems in different life and work situations;
- the acquisition of theoretical, conceptual and abstract knowledge (using theories, concepts, professional knowledge);
- developing an autonomous and ethical stance towards other people, the community and the environment, with the evolution of responsibility and autonomy (Pevec Grm & Ermenc, 2007: 23).

The development of competences therefore includes all three traditional dimensions, defined in a holistic and procedural manner. In this way, the formative tradition of *Bildung* is revived, as compared to the informative paradigm that prevailed in VET during the socialist period. The guiding principle is now the formative dimension: each module is created following a decision on the abilities and skills that learners are to develop, and the context for the use of those abilities and skills. In principle, psychological and labour market demands are supposed to meet at this point: higher order mental and psychomotor skills are to be developed, because this is good both for students' development and for their employability. The informative dimension is there mainly to support the formative one: on the one hand it connects skills to the underlying knowledge, and on the other hand, it defines the knowledge that has to be systematically achieved. Behind this design lies the aim of finding a balance between tacit knowledge, that will become automatic (Polanyi,

1967), and the knowledge that has to be learned in a systematic and reflective manner to enable its transfer to new situations, and the support of innovative thinking.

The Slovenian approach is close to the concepts of competence developed in some Continental European countries (Baartman & de Brujin, 2011; Bohlinger, 2012; Brockmann, Clarke & Winch, 2008; Lassnigg, 2012; Winterton, 2009; Zarifis, 2012), and similar to the one supported by Baartman and de Brujin (2011), who emphasised that a competence approach suits the learning process when VET is focused on preparing students to be able to solve complex problems, and to be able to apply knowledge to different tasks. Integration is the key word in their definition: 'Theories on competence development emphasise that learners must not only acquire but also integrate knowledge, skills and attitudes to achieve vocational competence' (Baartman & de Brujin, 2011: 127). The third dimension is closely related to the development of vocational identity. The development of vocational identity is understood as part of a broader socialisation process, which primarily takes place in the workplace. The sense of belonging to a vocational community influences person's attitudes, values, and therefore influences their work motivation (Muršak, 2009; 2010).

It can be concluded that while Slovenia today follows the continental European trend in vocational curricula reconceptualisation, it has not been able to leave behind its curricular practices established during the socialist period – the practices that placed informative aims at the centre of curricular planning. Today, however, the informative aims are concealed behind learning objectives presented in a rather granular manner. In Slovenia, this trait is seen as one of the obstacles preventing the competence approach from being brought to life. Instead of dwelling on redesigning the syllabi over and over again, some applied projects have been set up in order to specifically target the pedagogic process. Curriculum reform is not enough, it has to be accompanied by new instructional approaches; one of them is discussed below.

The project: 'Competence-based Didactic Unit in VET'

The project 'Competence-based didactic unit in VET' (CBDU) was commissioned to tackle the problem of the shortage of didactic approaches suitable for the new curricular concept. It was part of a project called 'The Efficient Implementation of Educational Programs and Quality Assurance' conducted between 2010 and 2013, and was financially supported by the European Social Fund. It was led by the National VET Institute, in cooperation with researchers from the Ljubljana University (Ermenc, Drobne & Štefanc, 2012). The project pursued two main goals: to develop and try out a competence-based didactic approach in VET, and to evaluate the efficacy of the model. In the first phase, the Institute consultants selected experienced and motivated teachers from various occupational areas (the timber industry, health-care, electrical engi-

neering, hairdressing, car mechatronics, the mining industry, and the fashion industry) to prepare and implement nine examples of the CBDU. The teachers–or, in most cases, teams of teachers–were, under guidance, required to prepare learning plans for one competence-based didactic unit, and several detailed plans for its sub-units. Nine such plans were produced, reviewed, corrected, implemented[1] and evaluated. After the implementation of the CBDUs we conducted a focus group to gain the professional opinions of the teachers involved in the project on the quality and efficiency of the CBDU-based instruction and learning. The results of the focus group are presented in more detail in the "Discussion and Conclusion" section of this paper.

The concept of a competence-based didactic unit. By partially decentralising the national curriculum, the authorities confronted schools with a new task: each school now needs to produce several implementing curricula, one for each educational program it provides. The person officially responsible for the task is the principal, but she/he usually delegates the responsibility to teachers, and appoints program leaders. When producing their yearly plans, each teacher analyses the aims and educational objectives set in the national syllabi, and groups the objectives and contents into broad didactic units. These units can be either discipline- or competence-based, depending on the aims and the nature of the educational subjects or professional modules. Therefore, not all didactic units are competence-based; the decision about which type of plan to choose depends on a reflection of the wider educational aims: competence-based didactic units are chosen when the students' ability to transfer knowledge to realistic work situations is crucial. When, on the other hand, academic skills are of greater importance, the didactic units are discipline-based.

The project aimed to support teachers in their pursuit of these objectives. It started with a definition of a CBDU (Ermenc *et al*., 2012: 19): a CBDU is an educational unit prepared at the level of a broader competence area, and may either be a constituent part of a professional module, or it can be structured in an interdisciplinary manner, bringing together the educational objectives of (1) general educational subjects, (2) vocational modules, and (3) key competences (Halasz & Michel, 2011; Pepper, 2011). The teachers stressed that by building on the concept of CBDU they aim to educate and train the students to be able to handle and perform complex work situations or sets of interrelated working tasks. One of the involved teachers emphasised:

While performing CBDUs, we engage students in practical authentic learning situations, but simultaneously focus on the underlying theory. We guide and monitor the students, and conclude each learning situation with reflection and critical evaluation. […] Learners are not competent when they

[1] Three of them were filmed, so the publication that was produced at the final stage of the project includes a DVD with the videos (including English language subtitles) that depict the educational process, the teachers' cooperation, and students' engagement in the educational activities.

are able to perform isolated work operations; they are competent when they are both able to produce high quality products or services, and also to modify, adjust and improve them (Ermenc *et al.*, 2012: 19).

Hence, CBDUs cannot be equated with authentic working situations: the latter are merely the starting points for the CBDU design. Moreover, CBDUs are didactically transformed units thatfocus on wider educational aims and objectives.

Therefore, the CBDU implementation follows the fundamental steps of didactic macro-articulation of instruction: (1) the introductory phase; (2) the instruction phase, focusing on theoretical knowledge; (3) the performing phase, focusing on the development of skills and the integration of theoretical and practical learning; (4) the evaluation phase, focusing on the identification of weak points and their eradication, and on rehearsal; and (5) the final assessment phase.

An example of a competence-based didactic unit. The example (Ermenc *et al*., 2012) is taken from the forestry sector, 4-year educational program that qualifies students to become forestry technicians. One of the program's fundamental professional modules is called Wood marketing. At the forestry school, modules are most often delivered by two or three teachers, but one is the leading; he is called the module teacher. The module teacher is responsible for the didactic preparation of the module and for the coordination of the teachers participating in the module. She/he also delivers most of the teaching, both theoretical and practical (before the reform, the teaching was divided between two teachers, one being responsible for theory and one for practice). In the practical part additional practice teachers join, because students split into smaller groups. The main idea behind this arrangement is to enable the students to integrate theory and practice. However,as the integration of theory and practice does not only mean the integration of narrow professional knowledge but also more transferable general knowledge, the module teacher cooperates with general subjects teachers as well. To enable the integration of professional knowledge, practical skills and general knowledge, the module teacher prepares an outline for several 'learning situations' (literal translation) or competence-based didactic units. He discusses these CBDUs with other teachers, usually with the teachers of mathematics, physics, ICT, foreign languages, depending on the aims of each unit. Together they produce concrete didactic plans. They aim atcombining two general goals: on the one hand, they intend to support the development of students'vocational competences, and,on the other,of their competences in specific general subject areas or key competences.

One of such CBDUs has been called "Timber assortment volume". The module teacher has divided it into three parts: classroom teaching; practicing on the training range; field practice. The first part takes place in two classrooms and in a computer lab. The first two lessons are dedicated to the theoretical bases required for the measurement of timber assortments. The

students take part in the discussion, fill in learning sheets, and conclude by some paper tasks to repeat what they have learnt. Another lesson is there to teach students how to use the Excel program for the calculation of timber assortments' prices. The lesson is taught by the ICT teacher, but the module teacher joins to help the students to solve an authentic task. The last lesson is delivered by the math teacher, who teaches the students to calculate the volume of some pieces of wood they brought tothe classroom.

The second part takes place on the training range. The module teacher demonstrates the task, while the ICT teacher gives instructions regarding the use the Excel program on tablet computers. The students are divided into small groups, and they conduct the tasks of measurement, data processing and calculating. They cooperate in finalising their activities.

The third part (field practice) takes place in the forest. Students need to put on their protective clothing and equipment. They are taught how to protect themselves, their mates and the forests itself. They work on various practical tasks, such as cutting large trees by using several techniques and safety percussions, cut the timber and measure the assortments. They discuss different problems and issues with the teachers and also develop their professional identity. The CBDU ends with an examination.

DISCUSSION AND CONCLUSION

The Efficiency of the Model

The CBDU project was aimed atdeveloping a model that would enable students to integrate knowledge, capabilities and skills to bring about their personal and professional development at a high quality level, to help them understand better the practical value of their learning and knowledge, and thus also increase their motivation. The evaluation of the model was divided into two parts. In the first part, the impact of the CBDU model on students' motivation and on their usage of learning strategies was examined (Ermenc *et al*., 2012, Radovan, 2011). The analysis was based on an adaptation of the standard Motivated Strategies for Learning Questionnaire (Pintrich *et al*., 1991), and confirmed the qualitative and quantitative influence of the CBDU on students' motivation and their use of learning strategies. Before the implementation of the CBDU, the three most common answers given included the wish for a higher grade, which is an indicator of extrinsicmotivation, whereas, after the CBDU, the measurement tool showed that the utility and applicability of the acquired knowledge had risen to hold a top place. The fact that students recognised these aspects as the most important shows their increased awareness of the significance and usefulness of the knowledge acquired at school for their chosen vocation. The same was true of the use of cognitive and metacognitive learning strategies: positive improvements were noted in

both areas. The results of statistical analyses show that, on the average, after the implementation of the CBDU, the students began to use in-depth learning strategies more frequently than before. This bears evidence to the positive effect on their approach and attitude towards learning brought about by introducing the CBDU into the educational process.

In the second part, we conducted a focus group with nine teachers who planned and implemented the CBDU. The focus group method is a research tool that gives 'voice' to the research participants. They have the opportunity to express their opinions, and explain their understandings of the research experience (Liamputtong, 2011: 4). Moreover, the participants' views enrich the research findings and provide researchers with some new insights on the research topic. Hence, participants' viewpoints are fore fronted (Gaiser, 2008). The participating teachers were all members of the project from the very beginning: they attended the trainings, planned the CBDUs, implemented and evaluated them. They continuously reflected their own teaching practice and contributed to the project with their ideas and suggestions.

We conducted the focus group on the premises of the Institute of the Republic of Slovenia for Vocational Education and Training in January 2012. The participants were informed about the aims, procedures and the scope of the discussion, which was moderated by one of the project's leading researchers. The discussion lasted for three hours, and was recorded and later transcribed. The qualitativeanalysis followed: the text was coded, the prevalence of codes summarised, and the relationship among the codes compared.

With the focus group method we sought to find out how the teachers had conceptualised the CBDU, how they designed the educational objectives, and how they implemented the teaching process, and what reflection this encouraged. We were also interested in their experience of students' acceptance of the new manner of teaching, and how this was reflected in their achievements. The teachers emphasised that they selected competence units cautiously, taking care of temporal and organisational conditions, as well as topical relevance. They emphasised the importance of careful consideration of theareas of knowledge that must be taught systematically, and when it is better to focus the teaching on the work requirements. At the same time, they expressed great satisfaction with the team work (cf. Džinović, Đević & Đerić, 2013; Šteh *et al*., 2014) since it had brought them closer, and positively influenced the students' motivation. In their view, the cooperation with their colleagues had made the implementation of the program more economical and coherent, they felt more confident and were encouraged by the positive response of the students. At the same time, they noted that a teacher's performance wasinfluenced by his/her preparedness to try a different style of work, and that coercion could have negative effects. Some teachers also reported higher student grades than with previous generations who had not experienced this approach.

Methodological Limitations and Conclusion

In spite of the encouraging results, careful interpretation is needed: the project was limited in terms of time, and included a relatively small number of vocational schools, and only teachers and students who were embedded in a specific social and cultural background. The results may have also been affected by the higher motivation of those participating, and one cannot neglect the possibility of a novelty effect (Kazdin, 2003). However, the results indicate that CBDU can influence students' ability to find some practical relevance in their learning, and that this influences their motivation for learning. In order to improve the relevance and motivation, teachers themselves need to be motivated and ready for changes, new learning, and reflection.

As for the transferability of the model to other contexts, we can conclude that its underlying philosophy could function as an inspiration for other models. It would be especially relevant to other school-based systems with a similar historical context that face similar challenges in bringing learning closer to the world of work, and which also value academic learning over practical training, and find it difficult to find a balance between these two.

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ДИДАКТИЧКИ ПРИСТУП ЗАСНОВАН НА КОМПЕТЕНЦИЈАМА У ИНИЦИЈАЛНОМ СТРУЧНОМ ОБРАЗОВАЊУ

Резиме

У раду се разматра дидактички и курикуларни модел који је развијен како би се обезбедила подршка имплементацији приступа заснованог на компетенцијама који је данас доминантан у средњем стручном образовању и стручном усавршавању у Европи. У првом делу рада даје се преглед савремених праваца развоја средњег стручног образовања у Словенији, а затим се расправља о одређеним педагошким појмовима који утичу на савремену образовну праксу. Разматра се појам *компетенција* у складу са начином на који су компетенције дефинисане у оквиру средњег стручног образовања у Словенији и представљен је нови дидактички модел – његова концептуализација, начин реализације и евалуације. Модел је изграђен у складу са концептом дидактичке јединице засноване на компетенцијама и осмишљен је како би се наставницима помогло у давању подршке ученицима да развију способност интегрисања знања, вештина и ставова неопходних за решавање сложених и непредвидивих професионалних задатака и изазова. У завршном делу рада разматрају се методолошка ограничења евалуације и могућности њене примене у другим контекстима.

Кључне речи: компетенције, курикулум, дидактика, образовни програми, средње стручно образовање.

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ДИДАКТИЧЕСКИЙ ПОДХОД, ОСНОВЫВАЮЩИЙСЯ НА КОМПЕТЕНЦИЯХ НА ПЕРВОМ ЭТАПЕ СПЕЦИАЛЬНОГО ОБРАЗОВАНИЯ

Резюме

Предмет предлагаемой работы – дидактическая и куррикулярная модель, конструированная с целью поощрения применения подхода, основывающегося на компетенциях, подхода, которому сегодня принадлежит ведущая роль в европейском среднем специальном образовании. Во вводной части работы предлагается обзор современных тенденций в среднем специальном образовании Республики Словения, а также педагогических понятий, на которых они базируются и которые оказывают воздействие на современную образовательную практику. Рассматривается понятие компетенций в той форме, в какой оно определяется в рамках среднего специального образования Словении и предлагается новая дидактическая модель в аспекте его концептуализации, реализации и эвалюации. Модель сконструирована на понятии дидактической единицы, безирующейся на компетенциях, а ее цель – облегчить преподавателям поощрение учащихся в плане развития способностей интегрирования знаний, умений и позиций, что, в свою очередь, делает их способными сталкиваться со сложными и непредсказуемыми профессиональными задачами и вызовами. В заключительной части работы рассматриваются методологические ограничения эвалюации и возможности ее применения в других контекстах.
Ключевые слова: компетенции, куррикулюм, дидактика, образовательные программы, среднее специальное образование.