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## Modular education in Slovenia

### Module, the richness of educational programmes

The word “module” can be found in different sciences and we are often confused by its meaning. In technology or more specifically in mechanical engineering module is a structure that is capable independently or as a component performing one function (module for heating, controlling module...). Similar description can be found in other disciplines too.

How is it in educational process? How should module be defined to be more visible, recognisable and be capable of meeting the needs.

To understand the introduction of module in secondary education it is worth to look into the current system of building the educational process in Slovenia. A quick overview shows that curriculum is built in linear way. Meaning its structure and execution. Curriculum is composed of subjects with the exact number of hours and division of hours among scholastic years for the curriculum. Each subject lasts through the whole year (with few exceptions) and its dynamics of execution is not dependent on other subjects in curriculum. The educational goals are verified (graded) with the ending (matura, final exam). Organization of educational process is directly dependent on the curriculum structure (subject oriented), a teacher is fulfilling goals of the subject, correlations in execution are rare, connection between abstract and practical knowledge is not visible.

Changing the stiff and regulated process and organization involves changing the structure of educational programme. A shift from subject to goal orientation is needed. Process and organization must be subjected to educational goals. Module seems to be solution as it should be understood as structure of general, professional and practical knowledge, as a structure that is aimed at achieving the goal: to acquire competence, to be competent.

### What do we want?

We have to build a vision and development of educational system on monitoring and understanding the trends on the labour market and in schools. Council of experts for VET in Slovenia has adopted the Starting points for development of educational programmes in VET (November 2001) which sets the basis for new educational programmes that should enable:

- better adjustment of education to the labour market needs
- constant development and adjustments to trends in sectors
- connecting general, professional and practical knowledge and skills
- possibility to choose and transfer within a programme and among different programmes
- higher autonomy and responsibility of the school for achieving quality in education
- schools and companies have to accept responsibility for development and execution of educational programme
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- goal oriented education
- be comparable and transferable on the European labour market
- recognition of non-formal and informal learning
- possibility for students to choose learning contents

Subject oriented educational programme is not suitable for reaching those goals. Process of changing and adjusting to labour market needs is too long, selectivity and flexibility are too small.

### **Modules in education**

Module based educational programmes should enable more flexible structure of educational programme, possibility of horizontal transfer in life long learning, transfer of modules among different educational programmes.

Modules are divided in obligatory, obligatory optional and optional. Obligatory modules set the goals of the sector and partially enable attaining key qualifications; obligatory optional modules enable the student to choose a professional qualification and optional give space for personal needs and wishes and also for local economy to define their special needs and purposes (specific knowledge characteristic for a local environment).

We could agree up to this point but from here on our ideas are divergent. How to define a goal which a module should accomplish? We found that there are two diametric solutions. On one side there is English model and on the other side we can identify a central European way of defining a module. The first one defines meeting the needs of a labour market (to train a person for a set of tasks in a short period of time) as a primary task of the module. The second one defines a module as a part of a larger structure (education) and is represented on the labour market as a whole, but it can be also an independent unit in life long learning or in a process of introducing partial qualifications (recognition of partial qualification). When we try to define a module we need to have those two solutions in mind.

The latter example was used in Slovenia when we planned the modularisation of educational programmes. We have to have in mind the specifics of Slovenian labour market where human resources are small and each person is important, everyone has to be competent in a broader area of profession.

We defined a module in educational programmes; where module has to integrate general, professional and practical knowledge and skills as:

- a unit which defines learning outcomes for a competence and methods of acquiring it
- a unit that requires coordination in planning educational process among all the teachers

### **Risks in planning educational programmes**

Planning educational programmes for vocational education based on occupational standards requires in depth knowledge of professional education, employers' expectations and possibility to develop a professional career. Five years ago when we started to develop a modular programme for the first time we had difficulties when tried to define a goal of each



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module. It is hard to change the pattern of subject oriented curriculum which has been in our tradition for decades into the modular based curriculum. The risks that we encountered were:

- too many modules (one module for each task)
- too large modules (impossible to reach the goals since its duration is too long)
- naming of the module is not adequate and unrecognisable (name should indicate the learning goals)
- acquiring one module is a precondition for entering another one (no options for selection and it defines the organisation of work in school)