# Organizatonal Development of Higher Education and the Competent Model in the Bologna Reform of Studies

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*Ever since 1988 the European countries have implemented the Bologna reform, based on the declarations submitted by the EU member countries ministers of higher education. The objectives of the Bologna reform are to create an integrated European higher education area by way of achieving high quality, transparency and measurability of the scope of studies relying on the ECTS system of integrated grading of the students' academic obligations. The adopted objectives of the reform guide the development of the higher education towards an integral personal development of the student population with a broad knowledge of the the European requirements as regards higher education and employment. Including the students into the management, the possibility of choice and the mobility of studies will certainly have an effect upon their integral development and their understanding of the European dimension of higher education. The development of universities will be based on an ever richer knowledge of the European higher education area, which will enhance the mobility of pedagogic as well as non-pedagogic personnel. The partnership within the academic community with the academic institutions and the employers will allow for the designing of such degree programmes developed on the sufficiently clearly defined competent models of the employment area. The higher education institutions will be in a position to meet the employers' needs on condition they ensure the development of research and consulting activities, which will, in addition to the degree programmes of formal education, allow for the implementation of various forms of life-long study. Some members of the Ljubljana university were among the first Slovenian higher education institutions that in 2005 implemented the degree programmes on the basis of the Bologna reform (among them the Faculty of Administration). The reform models are based on the competent models that were not always clearly defined; besides, the faculties and the universities are faced with a large number of highly demanding organizational and economic problems in the execution of the Bologna directed activities. This paper defines the form of the competent model used as a platform for the degree programmes reforms. It brings the experiences and organizational solutions in the implementation of the elements of the Bologna reform, such as: quality, the ECTS crediting system, options, mobility, partnership.*

## 1. Background facts

The higher education area in Europe has been undergoing the process of transformation initiated by the Sorbonne Declaration, followed by the Bologna Declaration in 1999. The latter is responsible for an avalanche of reactions all over Europe. The central idea of the "Bologna process" is actually rather simple. If we wish to be more closely connected in Europe, if we wish to increase the mobility among the qualifications, if our objectives are the higher quality education, we must establish a new trust, claims Gassner (2007). The trust, however, does not develop by itself, but has to be improved and advanced by implementing adequate measures. There is a need for the national interests to be adjusted (not at any cost) and the comparative degree programmes (curricula) and diplomas to be prepared.

The adjustment project in Europe was conducted within the Tuning project[1] which was highly successful, since, in addition to the work load to the students, it introduced a component of learning results (outcomes) which jointly define the ECTS in a most complex and a most efficient way. The motto of the Tuning project is: *Compatibility of educational frameworks and programmes on the bases of diversity and autonomy*. The trend established shows that the European countries and institutions are willing to learn one from another and thet the mobilitty of both students and teachers increasingly contributes to a growing understanding of a real European identity.

In order that the curricula be better understood and compared within the Tuning project a specific methodology was created that defines five key sets of approaches in the subject/disciplinary areas: (1) general competences or transferable skills; (2) subject-specific competences, (3) the role of ECTS as a credit accumulating system; (4) approaches to studying, teaching and assessment; (5) the role of improving

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[1] **The Tuning project includes over one hundred European universities and is directed towards designing concrete suggestions in the execution of the Bologna process on the level of higher education institutions and certain subject areas. The Tuning method incorporates the (re)designing, developmet, introducing and evaluation of curricula for each of the three Bologna cycles. The project has recently spread from Europe to Latin America and central Asia (gonzales and Wagenaar, 2007)**

quality in the education process, with an emphasis on the systems based on national institutional quality culture (Gonzales and Wagenaar, 2007). All these five sets of approaches allow for the universities to "tune" their curricula without giving up their autonomy and simultaneously enhance their competence and inovation. The issue to solve is how to implement the competent model to improve the opportunities of the graduate students to find employment.

## 2. Competent model as objektive of curricula moderniyation

The basic competences/skills the need for which is nowadays considerably greater – the man is expected to actively participate in the knowledge society and economy, on the labour market and in work – and which should be incorporated into the curricula, include some new skills, e.g., digital literacy, knowledge of foreign languages, social skills, etc. The individual is expected to be prepared to learn and make sense of a host of information. The individual will have to be able to act autonomously, but patiently, to collaborate to a higher degree than it was done in the past and simultaneously be ready and capable of acquiring new skills promptly as well as of adapting to new challenges and situations.

The ultimate objective of curricula is enhancing the development of competences crucial for a certain area; namely, a significant novelty is the "focus upon the curricula outcomes[2], expressed in competences" (Tancig, 2007:25). Tancig (2006) understands the competences as accomplished capacities that include both discoursive and practical knowledge and are a dynamic combinaton of knowledge, understanding, skills, competences and values. According to Medveš (2006), competences are the global objective of education, on one hand, the synthesis of knowledge, in terms of mastering the contents, perceptions and information using more elaborate cognitive processes, i.e., essential knowledge, while, on the other hand, competences are a synthesis of skills, capabilities and methods of an individual qualification or expert field, the so-called procedural knowledge; finally, competences are a synthesis of the development of interests, motivation, personal reaction, integrity and social implementation. Competences can therefore be understood as "*an individual's ability to activate, implement and corre-*

*late acquired knowledge in complex, varied and unpredictable situations*" (Parrenoud, after Svetlik, 2006:4). Or, as Gonzales and Wagenaar (2007:54) maintain, competences are a "*dynamic combination of knowledge, understanding, skill, and abilities, therefore the development of competences is the objective of the programmes of education*".

The Tuning project developed a model according to which the role of the higher education institutions in the curricula reform, i.e., in the curricula (national or international – *joint degree*) designing process is to create the curricula to be conducted within one or more institutions on the "eight step model". (Gonzales and Wagenaar, 2007).

According to Gonzales and Wagenaar, the first step (Prav tam/Straight towards) is the "provision of elementary conditions" for all the degree programmes. This is achieved by finding answers to such questions as: is the social need for the programme recognized on the regional/ national/ European levels? Is it identified on the basis of consulting activities and research, i.e., by all the interested parties: employers, experts, institutions, expert bodies? Is the programme interesting from an academic aspect? And, finally, are there available funds for the programme? In case of international degree programmes offered by a number of institutions, it is of crucial importance to know whether there is some agreement or a strategic partnership among them. Is there a guarantee that the programme will be legally recognized in different countries?... And, is there an agreement abour the programme duration as regards the ECTS? The second step contains the definition of the qualification, the third offers a description of the programme objectives and the results to be achieved, the fourth defines the generic and subject-specific competences to be achieved within the programme, while the fifth is about the transfer of contents and topics, modules and credits into the curriculum... then follows the transfer into the course units and the activities used to achieve the desired learning outcomes (the sixth step) and make decisions as to the approaches to teaching and learning processes (types of methods, techniques and formats), as well as an agreement as regards assessment and when it is necessary – provision/preparation of teaching materials (the seventh step). The last, eighth step includes the development of assessment system meant for a permanent quality improvement (Prav tam: 50:53).

Thus, in the higher education curricula reform we encounter certain new elements that we have to observe as logically interrelated, which is shown in the following chart:

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[2] **The teaching, curricula outcomes /results ar what the student will be capable of knowning, understanding or producing upon completing his studies. The results may relate to an individual course unit, or module or to a period of study, e.g., to the curricula of the first, the second or the third cycles of higher education. The learning outcomes set the criteria for credit accumulation. (Gonzales and Wagenaar, 2007:53).**

DESCRIPTORS

DEGREE LEVEL
(first, second, third)

COMPETENCES
(generic, specific)

COMPETENCE RESULTS
ANALYSIS
(ACCOMPLISHED:DESIRAB

DEGREE PROGRAMME

SUBJECTS AND
MODULES

OBJECTIVES
(generic, specific)

STUDY
ACHIEVEMENTS
(knowledge,
understanding, application,
reflexion, transferrable

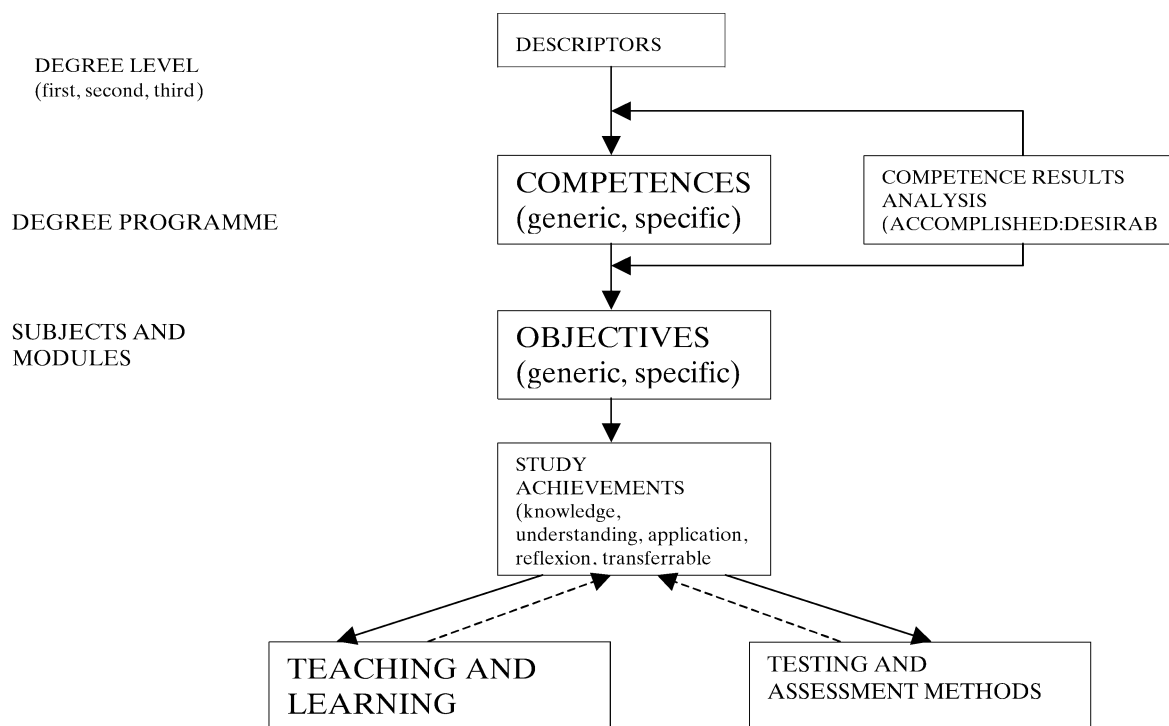TEACHING AND
LEARNING

TESTING AND
ASSESSMENT METHODS

*Chart 1: Degree programmes reform planning and development*

*Source: Tancig, S. (2007). Generičke in predmetno specifične kompetence v izobraževanju. V: Tancig, S. i Devjak, T. (ed.): Prispevki k posodobitvi pedagoških študijskih programov. Ljubljana: Faculty of Pedagogy UL, 24.*

The choice of the degree programme competences has to be adjusted to the descriptors of each study level, whether undergraduate or postgraduate. The descriptors are broad, wide-range, but significant study indicators at each of the three cycles/levels of study. Their role is not to offer a precise or complete description of studies on a particular level, but to facilitate a general comprehension of each of these. The next characteristic of the descriptor is to highlight an increased complexity of the study level as regards the complexity and the sophisticity of knowledge and the autonomy of the individual in an academic or professional area. Descriptors make it possible to compare the degree programmes in terms of the study level, however, programmes may differ as regards their objectives, contents and structure. Thus descriptors act as a significant guide in designing the degree programme competences and objectives, as well as the study achievements. (Tancig, 2007:26).

The competence design has to be in accord with a particular study level, i.e., its descriptor; in other words, the descriptors must be "translated" to degree programmes competences, whereas these in turn are to be translated to objectives, and finally to achievements. The degree programmes competencies  precondition

the setting of objectives and study achievements of the programme course units that in turn define the teaching methods and the methods of testing knowledge. Competences are classed as general, or generic and subject-specific. The Tuning (according to Gonzales and Wagenaar, 2007) differentiates among three forms of generic competences:

1. Instrumental, or applicable competences: cognitive, methodological, technological and linguistic competences;
2. Interpersonal, or mutual competences: an individual's abilities, such as behaviour in the society and capability of collaboration;
3. Systemic competences: abilities and skills that require entire systems (a combination of understanding, cleverness, knowledge with an overall acquisition of applicable knowledge and interpersonal competences).

The identification of generic and subject-specific competences is a process that requires an "agreement" among the graduate students, employers and academics as regards each academic area. Although the selection of the most adequate generic competences differs to some extent due to the specific nature of a particu-
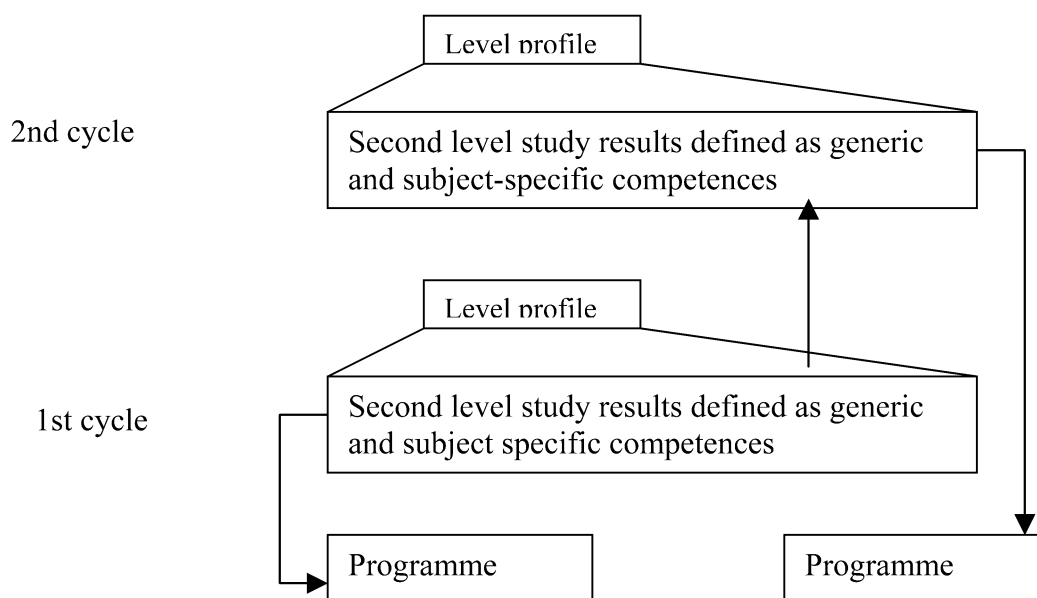
2nd cycle

Level profile

Second level study results defined as generic and subject-specific competences

1st cycle

Level profile

Second level study results defined as generic and subject specific competences

Programme

Programme

*Chart 2: Study results and competences in degree programmes*

lar area, the authors (Prav tam) claim that the typical academic competences, such as analytical and synthesis skills, as well as the learning and problem solving skills, are identified as most important in each of the areas. Other generic competences, such as the skill of applying the knowledge in practice, the skill of adapting to new situations, concern about quality, ability to control information, autonomous acting, team work, organization, work planning, oral and written communication in mother tongue as well as individual skills were assessed by both the graduates and the employers as primarily important for finding employment. The research conducted by these authors shows that more attention should be paid to a specific number of generic competences in order that the students preparations for future work should be as good as possible[3]. The subject-specific competences as part of the project were already defined for nine areas and the European countries reached the agreement about what comprises the essence of each area. As said above, competences are referent points in creating curricula and assessment methods. The curricula creation allows for flexibility and autonomy, however, they simultaneously offer a common language in describing the curricular objectives.

The implementation of the learning outcomes and competences achieved is necessary if the degree programmes, the modules, or the course units are to be student oriented. This approach requires that the elementary knowledge and the competences the students must acquire in the course of his studies should be defined. The study results and competences as regards the student training for an active participation in the civil society and employment are profession and society conditioned. In an "output", result based degree programme, the main stress is on a graduate, professional profile defined by academic staff and approved of by a competent authority. The profile, however, should be based on defined and identified needs of both the society and the academic sphere, the practice, the employers, organizations, associations and the graduates. In other words, what the programme does so that, e.g., entrepreneurship should be what entrepreneurship is, is of utmost importance. (Prav tam:57.). The programme groups within the Tuning project have already defined a number of characteristics of their own profession that we can find in the so-called templates or summaries of results. In the level or cycle system each cycle is expected to achieve a number of study results based upon competences, these being gradually developed throughout the study process. The chart below shows one apprach to competence allocation into the study units, or modules.

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[3] **A detailed reserach was conducted on the Faculty of pedagogy at the University of Ljubljana, in 2004. The findings made it possible for the authors of curricula to find out how the graduate students themselves perceive their competence after studies, what the employers say and what the opinion of the degree programmes promoters is. They concluded that more attention would have to be paid to those competences that train the pedagogical faculty graduates for the innovations introduced into school by the inclusion of children with special needs, by interdisciplinary approaches, by team work and by any aspects of communication, which complies with the findings revealed in European measures by Euridyce, 2003. Razdevšek Pu?ko and Rugelj, 2007:43).**

In a student and result oriented degree programme all study units are networked in some way, regardless of whether it is the units or modules of the major, the minor or the optional modules. In a well planned programme, the minors and the optional subjects may intensify the profile of the degree programme. Or, in other words, and as regards the learning outcomes achieved in other parts of studies, the learning outcomes of certain course units or modules contribute to the end results and the development of a certain level of competences.

One of the major aims of the Bologna process is a greater comparability and compatibility of the degree programmes and the lenght of studying/learning periods. The implementation of the concept of steps, learning outcomes, competences and credits certainly supports the objective.

## 3. Lessons learned from recognizing the need to develop organizational enviroment for a successful implementation of the Bologna reform

The Faculty of Administration was among the first at the University of Ljubljana and in Slovenia to introduce and develop the Bologna programme. All the degree programmes were reformed, the I and II level degree programmes underwent the accreditation process. The Faculty decided upon the 3+2+3 scheme. The programmes that represent the basics of the study process at the faculty are grouped and named ADMINISTRATION. On the 1st level, they are taught as university and higher education programmes at two departments (public and business), whereas on the 2nd level they are taught as one programme at three departments (administration, economics, information). The programmes have been implemented and pursued for three years now, which allows for some evaluations to be made.

At the time the programme was being introduced and in its course so far, the faculty found out that in order that the programme be implemented successfully, numerous activities were necessary to perform that were outside the execution of the process itself, however, were crucial in achieving the learning objectives. Let us mention only a number of examples that may be of interest for anyone who is faced with the problems of the Bologna reform implementation.

The affirmation of the quality standards is a rather broad concept that has frequently been the topic of study both at the faculty and in the public sector. The faculty has long been working on the development of the quality model, this being one of the research areas within the discipline it develops. The development of the quality model to be used in evaluating the Bologna reform orientation outcomes saw the rise of numerous problems in defining the standards supposed to be the basis for the faculty work results and progress assessment. A valuable aid in setting the criteria and objectives is provided by the standards promoted by the following institutions:

- A broad national association, e.g., University of Ljubljana, by developing and observing their own standards;
- International institutions, e.g., EAPAA (European Association for Public Administration Accreditation), where the Faculty accredited the second level ADMINISTRATION programme (DRAKULIĆ, M., DEVJAK, S., BRAČEK, A., Upravna misel, 2007);
- Partner-educational institutions with which the Faculty of administration jointly conducts the degree programmes and issues joint diplomas: Program Management in administration with the Faculty of Organizational Sciences in Belgrade (DRAKULIĆ, M., DEVJAK, S., BRAČEK, A., Pravni život, 2007a); the FINAC program (accounting and public finances) with partner faculties at the universities in Roterdam, Prague and Banska Bistrica (DRAKULIĆ, M., DEVJAK, S., BRAČEK, A., Upravna misel, 2007b)
- Institutions that employ graduate students.

The standards promoted by the faculty are as a rule difficult to attain which is rather due to organizational and financial restrictions than to the pedagogic staff being undertrained.

Monitoring and evaluating the ECTS system implementation is one of the key elements of the Bologna reform. The ECTS is awarded upon the student's completion of studies. It is certainly difficult if not impossible to measure the work. The measuring (evidence) itself of the student's attendance to lectures and prectice causes numerous problems. Despite the doubts as to the appropriateness of such measurement, this element certainly greatly affects both the workload (too much study obligations for students) and the length of studies. The latter is one of the relevant quality criteria that can reveal poor outcomes of the education process that can be the consequences of the excess study obligations or the students' lack of interest for cooperation in fulfilling the study obligations.

The optional choice is an important advantage of the Bologna reform which, however, causes to the faculties numerous organizational difficulties and often insolvable problems. Due to limited capacities (premises, staff, equipment), the faculties offering the option-

al choice are obliged to grant the priority of choice to more successful students. The solution here is the students' direct, computerized enrollment into the next study year, immediately upon completing the due programmes. The student may, of course, be offered the timetable on the basis of which he/she can choose subjects that will not overlap. A practical solution here was the offer of optional subjects in an e-form. The mobility as a method of knowledge and experience transfer as well as the optional choice and the interest component of education is linked with organizational and financial limitations. Problems often appear in teaching subjects in foreign languages (most ofen due to smaller groups and financial problems) as well as in case of replacement of teaching staff in times they are absent. These problems are easier to solve if similar faculties jointly organize lectures on some course units, subjects or parts of programmes in foreign languages. The acceptance of foreign students and sending our own students abroad is frequently a hard job due to the accomodation problems and a new study environment they enter. Student tutorship can prove to be of great help here.

The partnership in the Bologna reform objectives is broadly defined and offers the universities different ways of implementation. The Faculty of administration implements the idea of partnership in various areas:

- In the academic community where partnership is understood in a similar way by both pedagogic, non-pedagogic staff and by the students who decide upon mutual objectives and values;
- With the partner educational and research institutions when they jointly carry out the degree programmes and research work;
- Employers who employ the graduate students that take an active part in the educational (e.g., student practice, seminars and diploma works) and research processes (e.g., joint and individual research, European projects) in order that they should approximate the competent model to their human resources needs;
- The graduate students that make the link between the faculty and the profession, inform the faculty on the adequacy of the competent models of degree programmes and take the problems of profession to the academic milieu, or enhance the development of educational work or research activities.

Partnership is also a transparent method of financing both degree programmes and research activities. Providing services to external customers (e.g., optional subjects, foreign students, life-long degree programmes, research ordered by national customers or

European trusts) is related to the transparent system of tracking costs via their bearers, introducing the *"full cost"* system. All these, however, require that the system of costs planning and tracking via the performers and the costs and revenues related to these be introduced. It is thus designed economic parametres that could be a qualit basis in setting the relations between the service consumers and the service deliverers, in this case, the faculty. The Faculty of administration commences the implementation of such a system, however, prior to this, they had to introduce a computer measurement of the education process performance and develop adequate accounting applications for that purpose. The Faculty of administration introduces the *"full cost"* system into the university of Ljubljana as a whole, because of financiers, especially because of the requirements of the European projects financiers.

## 4. In place of conclusion

In a majority of higher education institutions the Bologna reform is directed primarily towards the development of degree programmes that the faculties developed on more or less well defined competent models. The Bologna process requires a continual cooperation between the higher education institution and its partners, where primarily the competent models of degree programmes are created and upgraded. The Bologna reform implementation, whether appropriately or poorly conducted by the ministries in charge, as a rule lacked well defined economic and organizational conditions. The Bologna reform represents a significant step forward in the educational process, the opening of the institution to the employers, the introduction of business behaviour and the adoption of different measures of assessing the learning processes outcomes. All these changes called for a simultaneous economic and organizational development of higher-education institutions in order that they should be in a position to meet the obligations set by the objectives of the Bologna reform of higher education.

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