

Joint Degree Programmes in Continuing Education – Curriculum Development in International Education

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This paper discusses a newly developed approach to market-, skills- and competences-oriented curriculum development processes in an international environment. The paper gives some insights to the difficulties as well as some positive aspects of the curriculum development process at the European level. Moving from the single institutional process view to a multilateral curriculum development perspective, the main critical factors of the development process are discussed. Central questions such as market, topical and institutional fits are the basic elements of this approach. Further questions are relevant for the design, such as: How can prior experience with curriculum development processes at partner universities be used? How should the links between input and output be managed during the development phase? How is the market for specific curricula analysed – or in some cases created? This paper explores a theoretical management approach to combining input- and output-based curriculum design in continuing education. Finally, the practical relevance of the new approach is discussed based on a curriculum development case study at the Danube University Krems from the perspective of a coordinator for the European “Higher Education Management and Development” LLL Framework project.

Keywords: curriculum development, joint Master’s programme, competence-based programme development, international curriculum, market orientation, needs analysis, competence matrix

Introduction

Since the Bologna Declaration was introduced in 1999, the ‘European dimension’ of higher education has become a matter of increasing interest for Europe’s higher education institutions (HEIs). One major innovation that has contributed substance to this notion is the development of joint degree programmes. A second development is related to outcome orientation and the shift from teaching to learning at HEIs. Meanwhile, university policy in Europe has been characterised by the increasing reliance on the differentiation of the university system as a modernisation factor, by the catalytic forces of the Bologna Process toward shifts in thinking and acting within higher education institutions. In the interim, these institutions are being granted more autonomy and their behaviour in the resulting competitive situation is expected to become more customer-oriented, more cost-aware, and more sensitive towards the needs of society and markets. Universities therefore need new mechanisms that allow them to collaborate and interact more effectively and efficiently with their stakeholders (Pausits, 2005). In this new mode of knowledge production, the role of market needs analysis for new curricula has to become more professional and has to be seen as an integrative part of curriculum development processes in continuing education. Especially in the highly competitive market of postgraduate education, such mechanisms are fundamental for institutional success. The Danube University Krems, Europe’s unique state-owned university solely for postgraduate programmes, aligns the educational services and programme portfolios with the needs of the market. This focus requires management and curriculum development approaches which are able to create and support market-oriented programmes. The present text highlights the development challenges of an international postgraduate joint Master’s curriculum based on market needs and competences.

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A theoretical framework and experiences for curriculum development in continuing and international education will be described as a case study for meeting such challenges.

The concept of market-, needs- and competence-based curriculum

Since Ralph Tyler's book "Basic Principles for Curriculum and Instruction" in 1971 on the meaning, purpose and function of a modern-day curriculum, the re-conceptualisation of curriculum and curriculum development arrived at a fundamental point. The focus changed from strong teaching to learning universities to improve their development processes, e.g. involving market needs and curriculum management aspects within the development practice (Jonnaert, Barette, Masciotra, Yaya & Morel, 2007). One of the driving forces of this new re-re-conceptualisation is the outcome and competence orientation in European higher education. In recent times, competence-based education is addressed by a holistic approach (Biemans, Nieuwenhuis, Poell, Mulder, & Wesselink, 2004). Competence is consistently seen from the perspective of where it will be used, together with the functional component, personal or behavioural component, cognitive component and ethical component (Cheetham & Chivers, 1996). "Competence is an integration of knowledge, skills and attitudes that enables a person to perform a certain task" (Wesselink, Biemans, & Mulder, 2007, p. 2). Competence can be seen as "the integrated performance-oriented capability of a person or an organisation to reach specific achievements" (Mulder, 2001, p. 76.). Knowledge and skills are outcomes of learning activities of students in interaction with the learning environment (Glaser, 1991). The concept of competence has taken a vital place in the curriculum reforms that are currently sweeping across Europe (Cendon, Prager, Schacherbauer, & Winkler, 2008). The entry of competence-based and outcome oriented education into the educational domain, especially from a curriculum perspective, has become a new driving force through the Bologna Process. The relevance of this polysemic concept in continuing education indicates a number of changes.

First of all, the discipline is no longer the starting point. There is a necessity for a genuine transformation of programme designers and educators. The adoption of competence as the organizing principle of a curriculum has to take into account what the exit profiles of graduating students should be and specify the set of situations that these graduates should be able to handle. In postgraduate education, this entails a mixture of identified competences on the basis of the real-life or work-related situations in a specific professional field and the academic logic of the educational programme. Defining the graduates' exit profiles is thus preliminary to identifying the resources required to deal with the situations. This affects the practices of educators as well as the learning methods that students are engaged in, e.g. problem-based learning or action learning. The most important principle is to make postgraduate learning significant for the students and useful for their working environment, an aspect that has been noticeably missing from higher education for a long time. In other words, the choice of competence as an organizing principle of the curriculum is a way to bring working life back into the classroom (Jonnaert, Barette, Masciotra, Yaya & Morel, 2007).

As an analogue to Wesselink and his colleagues (2007), the basic principles for a competence-based curriculum are as follows:

- Defined competences.
- Competence-development is continuously assessed ahead of, throughout and after the learning process.
- Learning activities are related to learning environments.
- In learning and assessment processes, knowledge, skills and mind-set are included.

- Students' reflection and responsibilities are stimulated.
- The different roles of teachers as coaches and experts are in balance.

Most of the principles have to do with learning and teaching activities as well as university support services; however, the focal point is to define the relevant competences for the target audience. This part, namely how to find the competences, is clearly underdeveloped and remains the missing link in competence-based curriculum development. HEIs answer this new challenge by improving internal processes. From the perspective of the process workflow and institutional development chain, progress in the curriculum becomes critical. This procedural view leads HEIs to a well developed set of organisational and legal steps. The following Figure 1 shows the curriculum development process at the Danube University Krems:

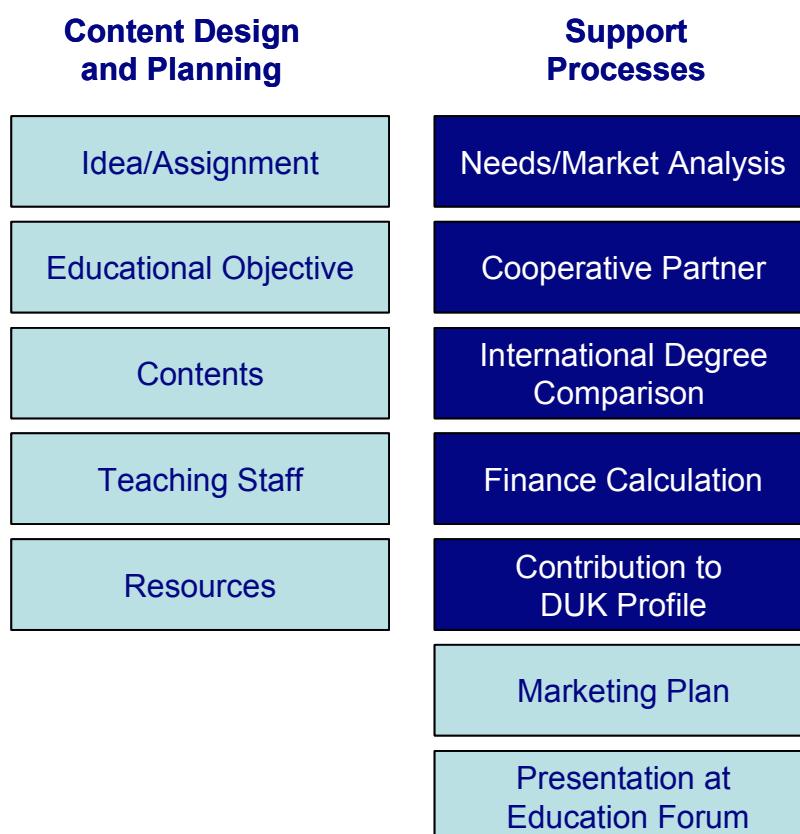


Figure 1. Curriculum development process at the Danube University Krems (DUK)

Alongside the content design and planning processes, the curriculum support processes assure the market success of a new curriculum. Moreover, in competence- and skill-based education these support processes are critical factors for the re-conceptualisation of the curriculum in higher education institutions. This new workflow increases the managerial and administrative tasks during the development stage. Meanwhile, there is also more transparency, which is such an important prerequisite for quality assurance during and after the development phase. In other words, the content design and planning processes could be seen as the input-oriented part while the support processes are the output-oriented part of the development process. A new Taylorism has arrived at HEIs in an effort to improve processes to make them more effective and efficient.

In the case of the Danube University Krems, the last stage of the formal curriculum development process is the presentation of the new curriculum at an interdisciplinary intra-institutional formal unit. The positive effects of such a 'cross over' unit were that development experiences could be used from different fields and departments of the university. This exchange platform helps in putting experience-based curriculum development knowledge to use in teaching and learning settings. In addition, the forum is an instrument of quality management and quality assurance. It is also useful for benchmarking programmes at the university.

Joint master's programme

The Council of Europe/UNESCO Recognition Convention is one of the key standards for the Bologna Process aiming to establish a European Higher Education Area by 2010. As such, joint degrees have the potential to play an important role in helping establish the European Higher Education Area (2008) as was underlined by the Prague Higher Education Summit:

In order to further strengthen the important European dimensions of higher education and graduate employability Ministers called upon the higher education sector to increase the development of modules, courses and curricula at all levels with 'European' content, orientation or organisation. This concerns particularly modules, courses and degree curricula offered in partnership by institutions from different countries and leading to a recognized joint degree. (Conference of Ministers Responsible for Higher Education, 2001, p. 2)

The sustainability of such programmes can only be analysed seriously in the long term. It is still an open question how many of the joint degree programs remain. The European University Association (EUA) report on joint degrees (2006) found that there is no common definition in use today, whether explicitly or implicitly, but a joint degree can be said to have all or some of the EUA-defined characteristics (see Table 1). The EUA's Guidelines aim to provide different stakeholders involved in joint Master's degree programmes with a set of questions and issues that they could usefully address in their daily work. The EUA uses a positive formulation and does not mention the potential pitfalls and reasons for failures. In the particular field of the joint Master's programme in postgraduate education, additional aspects are relevant. The following table shows the important aspects in the sector of postgraduate education for a market- and competence-based curriculum and links these aspects to the EUA's 'golden rules':

Joint Master's degree programmes' characteristics	Aspects for market- and competence-based curriculum in postgraduate education
<ul style="list-style-type: none"> • programmes are developed and/or approved jointly by several institutions 	<ul style="list-style-type: none"> • the partners have different development processes, approaches and levels of market- and competence orientation • market needs are different in the partner countries • the balance of power within the network is not given. There is danger of dominating partners as opinion leaders excessively shaping the programme •
<ul style="list-style-type: none"> • students from each participating institution physically take part in the study programme at other institutions (but they do not necessarily study at <i>all</i> cooperating 	<ul style="list-style-type: none"> • students' backgrounds are different • the relation of student numbers coming from the home institution and from

institutions)	<ul style="list-style-type: none"> • "outside"
<ul style="list-style-type: none"> • students' stay at the participating institutions should constitute a substantial part of the programme 	<ul style="list-style-type: none"> • students from other universities are not able to finance their stay
<ul style="list-style-type: none"> • periods of study and examinations passed at the partner institutions are recognized fully and automatically 	<ul style="list-style-type: none"> • all institutions look for the same competences in student assessment phases
<ul style="list-style-type: none"> • the partner institutions work out the curriculum jointly and cooperate on admission and examinations. In addition, staff of participating institutions should be encouraged to teach at other institutions contributing to the joint degree 	<ul style="list-style-type: none"> • flexible curriculum approach to answer local and regional needs • visiting staff missing local environmental- and job-related knowledge
<ul style="list-style-type: none"> • after completing the full programme, students either obtain the national degree of each participating institution or awarding body or a degree (usually an unofficial "certificate" or "diploma") awarded jointly by the partner institutions 	<ul style="list-style-type: none"> • common learning agreements • common competence portfolios of the programme • importance of an international degree in the working environment of the student

Table 1. Aspects for market- and competence-based curriculum in postgraduate education related to joint Master's degree programmes' characteristics according to the EUA report

The EUA report describes the success factors for a joint Master's degree programme. Although these results are promising, there is as yet no in-depth research on the different joint programme attitudes. In the case of market-oriented and competence-based programmes, additional factors should be included and a theoretical and practical framework for the development process is needed.

The development process

In this section, relevant steps and difficulties in an international environment will be introduced in light of a market- and competence-based approach and according to Table 1. A particular joint Master's degree development is used as an illustrative case study. The theoretical framework of the curriculum development is based on five different stages: (1) assumptions and common understanding, (2) market needs analysis and definitions of competence and outcome, (3) the competence development processes and (4) the student service processes, and (5) the monitoring of programme quality and ongoing development of the curriculum after the programme is up and running.

Assumptions and common understanding: mission statements, goals, and objectives

The definition of programme aims and objectives is a first important step in the development process of a new curriculum. Without a common understanding of the partner institutions, the development will fail. In the opening planning phase, the partners should be open about their motivations for working together. These may be diverse, such as personal reasons, logical choice or systematic matchmaking. These motivations will also be pushed by an intersecting point with the university's international mission and maintained through the institutional infrastructure, such as an international office (EUA, 2006).

The partner institutions need an agreement for the entire structure of the degree programme, regardless whether its function is interpreted as being:

- 'adaptive', i.e. in terms of the capability to adapt to changing social and professional requirements;
- 'adaptable', i.e. in terms of the capability to adapt to changing requirements on one's own competences, or;
- 'transformative', i.e. in terms of the capability to contribute to professional and social changes (Wildt, 2007).

In the particular case of the above-mentioned Master's programme, instead of simply teaching scientific knowledge, the degree programme expresses the competence to endlessly obtain new knowledge related to market and student requirements. The Master's programme consequently becomes oriented towards life long learning and will be linked to other bachelor and PhD programmes in the field. Life long learning consists not solely of continuously acquiring new knowledge, but also of knowledge distribution. The joint programme is based on a blended learning approach that combines e-learning and contact class hours in the best way for part-time students and adult learners. This learning environment and mode allow all involved persons to self-regulate their individual learning while the partner institutions develop a common level of quality for blended learning.

The programme has to answer in an adequate way the needs and requirements of the programme's target audience. The shift from an input- to needs- and outcome orientation took place through a double development process. First the curriculum development team developed a draft curriculum. Second, the team used an international online survey to confirm the developed topics and used the results to adjust the programme. The questionnaire was designed to reflect the current needs as well as impending topics that will become more important in the future. In this way, the team was able to develop a flexible programme approach for changing and adjusting the focus of the programme. This dynamic related to the rapidly changing working environment is essential for such programmes, especially in adult education. Figure 2 explains the set of important factors for participation in the joint Master's programme as well as the different fields and thematic issues for a market analysis survey. The results of the survey showed that not only the topics but also the target audience of the programme will change within the next three to five years. Thus, the challenge is to develop a flexible programme in terms of the topics and target audience as related to the survey results. This challenge created the basic framework and objectives for the development of the curriculum. In addition to these results, the market analysis delivered other programme management findings related to such issues as pricing, delivery mode, acceptable programme length, etc.

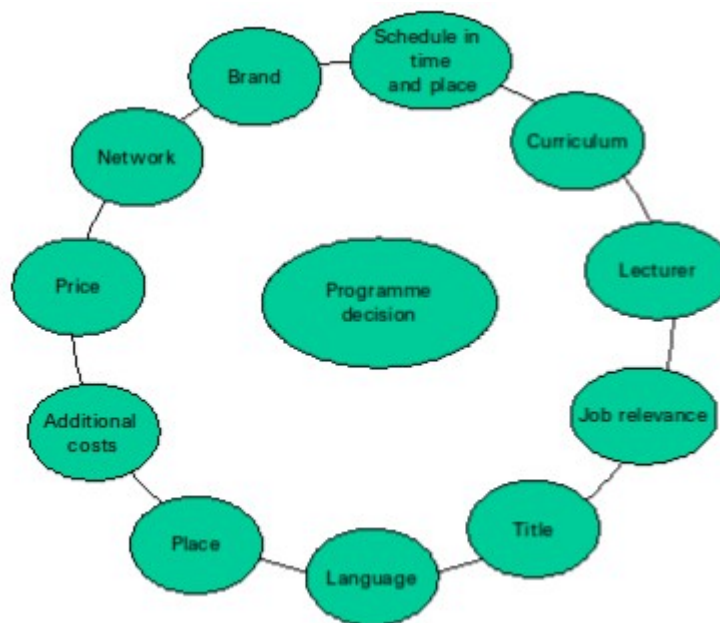


Figure 2. Key factors for student participation in a postgraduate joint programme

Market needs and competence definition

A main objective of a competence-based programme is not only the definition but the organic integration of key competences into the degree programme, which aims beyond the passive acquisition of knowledge to the productive dealing with knowledge. In order to achieve this objective, the curriculum has to combine three different types of competence: cognitive competence, methodological competence, social and self competence. The defined competences of the programme are a set of these different types of competences. Each thematic module is matched to the defined competences (see Table 2.). The relationship between the competence and module is also described. The competence level (high, middle or low) characterizes the module, which helps the academic staff develop educational activities for each module in terms of competence levels. It also helps the academic staff define the competence focus. This competence matrix shows the programme from the perspective of the intersecting competence phase and module. The matrix is also a control mechanism that helps prevent overloading one module with too many competences and vice versa.

	Competence 1	Competence 2	Competence 3	...
Module 1	High	Low	High	
Module 2	Middle	Low	High	
Module 3	High	High	High	
....				

Table 2. Competence matrix related to thematic topics and modules

The competence matrix provides the module developers with an orientation about the entire programme and advice about the competence portfolio for each module. Therefore, the competence matrix helps to develop each module and at the same time could be used as a control mechanism to evaluate the modules in terms of learning outcomes. In the particular case of the joint Master's degree programme development, the competence definition took place as a four step concept: First, the project group responsible for the programme mission, goals and expected target audiences describes the competences and thematic modules that should be developed. Second, through a market survey, the target audience evaluates the defined competences and modules and adds additional competences and modules to the programme. In the next step, an external expert group reflects on the set of competences and modules and advises the project team. Finally, the project team defines the ultimate competences and modules and the relationship between modules and the corresponding competences.

After defining the competences and modules, the project team starts to work on the thematic modules and develops detailed module descriptions based on the principles of the European Credit Transfer System.

The education process: producing competences

The core process of a study programme is education and knowledge transfer. Developing knowledge, skills and competences are the central elements of curriculum and educational processes. In addition, joint Master's degree programmes can be seen as one of the driving instruments of a common European Higher Education Area. These programmes aim to strengthen the exchange process and cooperation between universities at the European level and close the gap between the countries. Therefore, the competence development at the HEIs involved creates a more complex learning environment. As a result, the curriculum has to be designed such that each student has the sustained opportunity to apply the knowledge, skills, attitudes, and values that have been identified as intended outcomes to important issues, situations, and problems.

Institutions also need to provide information on how to translate generic descriptors into qualification profiles, obtained competences, course types and module descriptions, ratios between contact hours and workload – depending on categories of modules. Then the educational processes employed to help students learn in each module or activity remains fully consistent with research on learning and student development and is thus appropriate for reaching both the module's or activity's specified outcomes and those of the curriculum. The programme needs high transparency so that students understand the purpose, structure, and processes of the cur-

riculum, their responsibilities for learning, and how their progress will be assessed. The key issues in this process are first the openness of the relevant universities and organisation to competence-based education and, second, the compatibility of partner universities' understanding of the criteria levels (design, process, quality and outcomes) of the programme, and, third, the organisational and managerial understanding and workflow between the universities.

The service process: supporting individuals

HEIs as knowledge-based expert organisations with a strong focus on teaching and research also need an understanding of service. Recently, HEI leaders tend to think of academic services as the third pillar and they have begun to pay more attention to these services within HEIs. Education and research activities are 'de facto services' for stakeholders. Faced with strong competition in the HE market, institutions are compelled to search for competitive advantages. The integration of a service culture provides additional support for success, over and above the original tasks of HEIs. In this 'service mode', HEIs have to change away from the attitude of being ivory towers and should be transformed into relationship-based organisations. More and more universities try to develop institutional service culture and understand their own mission to provide services for stakeholders. Within this new direction, new products such as a Master's programme, also have to take students into consideration as one of the stakeholder groups at HEIs. The orientation and changes in knowledge formation from teaching to learning refer to a customer orientation in which the potentials and processes are coordinated with the learning prerequisites provided by the students (Hansen, 1999). Examples of this are the new flexibility of times and places of learning or the use of E-learning. Improvement of an institution's services occurs by orienting the services towards the students, as well as through the better use of students as external factors. This customer orientation is reflected in the main processes of the HEI (i.e. teaching and research) as well as in the perception of students, strategic partners and enterprises as 'customers'. The first steps toward creating new relationships and developing competitive advantages for the institution in the long run include such initiatives as alumni management and the improvement of academic services. Especially in the case of joint Master's programmes, the role of international offices and their staff becomes essential and vital for the transition between HEIs and the students' mobility from one university to another.

Monitoring program quality: knowing and improving actual results

Due to the rapid development of and changes in knowledge, especially in postgraduate and job related education, curricula are dynamic, organic objects and therefore require continuous adjustments. This can be accomplished by consistent assessment and monitoring of the programme as a product and service, as well as of market needs and changes. As a result, the programme should have an assessment plan that ensures that graduates have the knowledge, skills, attitudes, and values described as intended outcomes of the curriculum. In addition, related quality assurance procedures and a dynamic view on market needs are essential for the sustainability of the programme in the long run. The quality reflection and development related to the programme life cycle are important prerequisites of a successful programme in the postgraduate environment. Periodical programme re-engineering and review of competences and modules automatically lead to a view of time, programme life-cycles and changes. That is why curriculum development is a process and not a project. The monitoring and adjustment aspect must be considered during the primal development phase. Especially in joint Master's degree programmes, the adjustment and change in established programmes align more institutional and process com-

plexity and consequently must be considered from the very beginning. Student perceptions of programme satisfaction should also be used to improve the entire programme. Finally, the question of how intended outcomes are measured must have a clear answer in order to reveal what graduates are able to do and how they can use the competences in their work life.

Conclusions

Joint Master's degree programmes must be based on a common philosophy of the partner institutions. Developing this common understanding for the programme is a basic requirement to setting up the theoretical and practical framework for the programme. At least the curriculum has to be established based on a common educational philosophy and directly linked to the respective institutions' mission statements. A curricular mission statement and defined curricular goals with planned learning outcomes and competences express the principles, namely: what profile a prospective student should have, who the target audience for the programme is, what graduates should know and be able to do. Furthermore, common attitudes and values for the teaching staff are necessary in order to create an international programme oriented on academic environment. These goals and their objectives have to be specified in significant aspects and in behavioural language that will permit evaluation of their success, which is the curriculum's real outcome. The required result of a curriculum is defined first and foremost through teaching and learning. Therefore, the selection of course experiences and developing students' competences is essential to the quality of the curriculum. Furthermore, teaching and learning activities must be carefully planned in the development phase in order to create an internationally coherent but flexible curriculum that reflects national, regional and local distinctions yet still retains the defined outcomes and competences of the programme. This implies the necessity to consistently monitor the effectiveness of the curriculum in fostering competence development as well as the actual achievement of predetermined outcome goals. Monitoring the modules and defining quality in teaching services help improve and secure the quality level for all partner institutions and teaching staff involved. In an international environment, the intentional educational processes embedded in institutional habits and processes are focal points for the quality of educational services. An effective joint Master's degree programme and curriculum highly depend on academic advising. Academic advising in a postgraduate joint Master's programme is developmental; it should focus on students' expectations and needs and assist students to design curricular and non-curricular experiences that help them achieve their own goals and learning outcomes. Meanwhile, joint Master's degree programmes could also be seen as modern benchmarking tools for analysing and comparing institutional services and qualities for the other involved institutions. Such tools also support further development within the home institution.

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