

MODELING OF THE MAIN ACADEMIC PROCESSES

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This paper presents the possibility for modeling the educational processes as a value added chain.

Keywords – Academic Processes Modeling, Value Added Chain

Introduction

Present education and training needs more flexible education system than in the past. It is necessary education to be adaptive, considering with incoming students education level. As well as it has to be flexible, allowing new education aspect and modernization of old ones. New technologies development and implementation expand the possible education processing forms and ways. Information and communication technologies let to begin new pathways to lifelong learning in universities, schools and workplaces. E-learning promises to enrich peoples skills base by giving them control over what, where, when and how to learn. Applying the e-learning in the universities will give many competitive advantages for the universities. Before the implementation it is useful to model the academic processes and to simulate different scenarios [2, 6].

This paper presents the possibility for modeling the educational processes as a value added chain.

Business process management and academic processes

Business processes should represent the logic of the running activities. Following this, it is obvious that different industries may not have same processes. Additionally if they have same ones, details might have difference. Each industry has its own specifics, which should be mind at the design stage. Academic business processes are not exception. They have own specifics reflecting on education like a system.

Some Academic business processes major specifics are:

- The incoming students' knowledge level changes constantly. It mainly depends on previous education. It is not influenced from public advertisement like the other market;

- Technologies development and their daily work entering are a strong factor for skills and knowledge formation;

- All industry is "client" of university education. That means business needs should influence and drive educational process;

- Interdisciplinary knowledge is a major issue – at least specialists should have Professional + IT knowledge.

- Educational programs should be adaptive. It demands flexible academic management;

Lecturer knowledge should be extended constantly;

Students' professional realization and growing feedback is required.

University education must be efficient and flexible. This flexibility requires from university education to be dynamic and conformable with the changing environment – like inputs and data and like output results and knowledge. Following the environment dynamic lecturers must be adaptive and collect new knowledge. Interdisciplinary knowledge is a major objective. Students' consumers – industry and government – change its requirements as well. Continuously results' comparing with international universities is required. Feedback must be lead in and result analysis – from lecturers, students and student users - the business. It is necessary to be studied science and education novelty and their in time applying. Processes dynamic requires activities dynamic. The best way for work dynamic improvement is modern ICT and conceptions use and following continuous process improvement approach.

An Academic Chain Operations Reference-model

There exist many models for the business processes as the Supply-Chain Operations Reference-model (SCOR), the Design-Chain Operations Reference-model (DCOR) and the Customer-Chain Operations Reference-model (CCOR) [1, 4, 5]. The Sharable Content Object Reference Model (SCORM) provides cost effective solution for institutions about standard reusing and interchange the content across the different platforms for the education and training [6]. The challenges bridging BPM (Business Process Management), IT Applications and BPMS (Business Process Management Services).

In this paper we suggest to interptate existinge processes reference models and have suggested an Academic Chain Operations Reference-model (ACOR) – figure 1. It is a process reference model that can be used as a tool for academic process government. ACOR will enables users to address, improve, and communicate academic management practices within and between all interested parties.

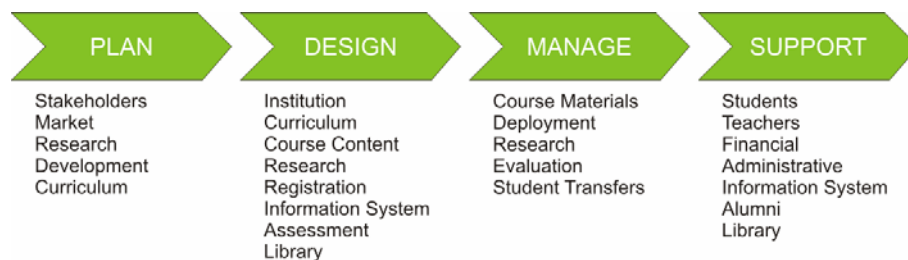


Figure 1. Academic chain Operations Reference-model (ACOR)

The ACOR model enables academic organizations to effectively get knowledge about the processes in their academic value chains. With a comprehensive process architecture university are ready to determine use of technology to support the processes. Rectors are receiving boardroom pressure for complete process accountability together with horizontal integration of all the processes thus providing the best possible value to the value chain's customer. The ACOR model will support

the key issues and the gearing together of processes within and between the individual units of chains (networks) for the benefit of the following processes:

- Planning
- Designing
- Managing
- Supporting

For each of the above processes and sub processes are described:

- Mission
- Goals
- Scope
 - Includes
 - Excludes
- Key Performance Indicators
- Workflow
- Roles

The major directions for working processes description in education are two – main education activities and all other activities. The business processes into education activities should regard the whole education process – planning, designing, managing and assessment.

The activities, which are not connected directly to the learning process, might be classified as supporting. For normal educational process performance it is necessary all supporting activities to be planned and executed well. For educational process normal running it is necessary all supporting activities to be planned and performed very well. Business processes scope can begins with students gathering for instance. Applications collecting campaign should be organized proper way. Next processes that have to be developed are applications processing and exam.

According to methodology when business processes are correctly described, the possibility to make simulations it appears [2,3]. Simulating different future situations, education system behavior and its features can be improved before real problems become a reality.

CONCLUSION

Dynamic life needs to be implemented new educational forms, according to realities. New individual education methods implementation adapted to students will allow better results achievement. That should be new education quality. If we unify all education development directions, requirements and opportunities in a single product, that would be real e-learning.

The ACOR-model has been developed to model the academic activities associated with all phases of satisfying a learner's demand. By describing academic chains using process building blocks, the model can be used to describe educational activities that are very simple or very complex using a common set of definitions. The model has been able to successfully describe and provide a basis for academic process continuous improvement.

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