EMPLOYABILITY AT THE BOLOGNA STUDIES

PERCEPTION OF STUDENTS AND TEACHERS
FROM THE UNIVERSITY OF RIJEKA

University of Rijeka
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Academic year 2005./06. The delivery of the accredited reformed study programmes started at all HE institutions (graduate level started in 2008./09.).


2010. Internal and external procedures are defined.
City of Rijeka
University of Rijeka in numbers

- State funded university under the direct authority of the Ministry of Science and HE (like all the universities in Croatia)

- Today the University has around 13000 full-time and 5500 part-time students enrolled at university and vocational study programs.
University of Rijeka in numbers

- University is divided into 10 faculties/academy that have legal autonomy as members of the University and 4 departments that are directly integrated in the University.

<table>
<thead>
<tr>
<th>Academy of Applied Arts</th>
<th>Faculty of Law</th>
</tr>
</thead>
<tbody>
<tr>
<td>Department for Informatics</td>
<td>Faculty of Economics</td>
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<tr>
<td>Department for Mathematics</td>
<td>Faculty of Philosophy</td>
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<td>Department for Physics</td>
<td>Faculty of Teacher Education</td>
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<tr>
<td>Department for Biotechnology</td>
<td>Faculty of Tourism and Hospitality Management</td>
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<tr>
<td>University Library Rijeka</td>
<td>Faculty of Engineering</td>
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<tr>
<td>Student centre</td>
<td>Faculty of Civil Engineering</td>
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<td>Faculty of Maritime Studies</td>
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<td>Faculty of Medicine</td>
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The Bologna reform was implemented at the University of Rijeka through three basic stages:

(I) The **curriculum reform** and implementation of study programmes aligned with the basic requirements of the Bologna process (started in 2005).

(II) The introduction of **quality assurance system** (started in 2006).

(III) The implementation of **learning outcomes** (started in 2008).

For the first two phases of the reform, there was a legal framework at national and / or university level which considerably facilitate the formal part of the implementation while implementing the concept of learning outcomes was, and still is, more complex as there is no single form for its successful implementation.
FIRST FIVE YEARS OF THE BOLOGNA PROCESS AT THE UNIVERSITY OF RIJEKA – RESEARCH (I)

**Degree system**
- Stage of implementation of the first and second cycle
- Access to the next cycle
- Implementation of national qualifications framework.

**National implementation of Standards and Guidelines for Quality Assurance in the EHEA**
- Stage of development of external quality assurance system
- Level of student participation in quality assurance
- Level of international participation in quality assurance.

**Recognition**
- Stage of implementation of diploma supplement
- National implementation of the principles of the Lisbon Recognition Convention,
- Stage of implementation of ECTS
- Recognition of prior learning.

**Bologna process stocktaking 2009 indicators**

**Adjustment of the indicators to the University level**
- Study programs and support in studying
- Student mobility
- European and social dimension

**Categories for questionnaire**
- Study programs and support in studying
- Delivery of the programmes,
- Quality assurance

Indicators from the Strategy of the University of Rijeka from 2007-2013
- Recognition
- ECTS

Data from the Office for student mobility, Job centre
- Recognition and Employability
- Mobility
The study is comparable to the research EUA 'Trends 2010: A decade of change in European Higher Education

Analysis of the results included a quantitative analysis (ie, number of enrolled students, success in studies etc.) and qualitative analysis of results which included an analysis of the attitudes of teachers and students of the University in topics relevant to the Bologna process.

For quantitative analysis the data collected annually through the reports on the Implementation of the Strategy of the University of Rijeka (2007-2013) were used, the data from the Centre for the Studies at the University level and data collected thorough other university offices (e.g. Office for Erasmus, etc.).

Results of the self-evaluation of QA system conducted in accordance with Handbook of the QA of studies at the University were also used in the analyses.
In the research of the Bologna Process at the University of Rijeka, employability has been analyzed in several aspects:

1. The representation of professional practice within the curricula
2. Perceptions of students and teachers on students’ preparation for the labour market
3. Perceptions of students about employment opportunities and their intentions after graduation

- Self-evaluation of the QA system in the part where it refers to the existence of data on alumni and data useful to alumni and to employers
1. The representation of professional practice within the curricula

- Analysis of the results related to students' satisfaction with the role of professional practice in their study programmes shows that this segment of studies at the University of Rijeka has been neglected.

- On average, only 18.4% of university students feel that the practice is properly represented in the program (Table 1).

- A very large proportion of students, almost 24%, of them, think that number of ECTS allocated to the professional practice is too small.

- The disturbing fact is that on average at the University as much as 22% of students do not know whether a study program which they are attending do provide opportunity for practical experience.
Table 1: Students satisfaction with the position/representation of the professional practice in their study programme (percentage of answers)

<table>
<thead>
<tr>
<th>Constituents</th>
<th>NO, I think that too small amount of ECTS is allocated to professional practice at my study programme</th>
<th>YES, I think that enough ECTS are allocated to professional practice at my study programme</th>
<th>I AM NOT AWARE if professional practice is presented at my study programme</th>
<th>Professional practice IS NOT represented at my study programme</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academy of Applied Arts</td>
<td>28.3</td>
<td>40.6</td>
<td>24.5</td>
<td>6.6</td>
</tr>
<tr>
<td>Faculty of Economics</td>
<td>8.2</td>
<td>2.7</td>
<td>22.5</td>
<td>66.7</td>
</tr>
<tr>
<td>Faculty of Tourism and Hospitality Management</td>
<td>15.6</td>
<td>12.0</td>
<td>25.1</td>
<td>47.3</td>
</tr>
<tr>
<td>Faculty of Humanities and Social Sciences</td>
<td>33.2</td>
<td>14.4</td>
<td>23.0</td>
<td>29.3</td>
</tr>
<tr>
<td>Faculty of Civil Engineering</td>
<td>37.9</td>
<td>4.0</td>
<td>30.5</td>
<td>27.7</td>
</tr>
<tr>
<td>Faculty of Medicine</td>
<td>42.5</td>
<td>30.8</td>
<td>21.7</td>
<td>5.0</td>
</tr>
<tr>
<td>University Department of Informatics</td>
<td>8.3</td>
<td>16.7</td>
<td>15.5</td>
<td>62.5</td>
</tr>
<tr>
<td>University Department of Mathematics</td>
<td>10.8</td>
<td>35.1</td>
<td>40.5</td>
<td>13.5</td>
</tr>
<tr>
<td>Faculty of Law</td>
<td>21.6</td>
<td>13.1</td>
<td>33.8</td>
<td>31.5</td>
</tr>
<tr>
<td>Faculty of Teacher Education</td>
<td>71.8</td>
<td>28.2</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td><strong>Faculty of Engineering</strong></td>
<td><strong>29.7</strong></td>
<td><strong>68.8</strong></td>
<td><strong>0.9</strong></td>
<td><strong>0.6</strong></td>
</tr>
<tr>
<td><strong>Average</strong></td>
<td><strong>23.9</strong></td>
<td><strong>18.4</strong></td>
<td><strong>22.0</strong></td>
<td><strong>35.7</strong></td>
</tr>
</tbody>
</table>
The representation of professional practice within the curricula

- Above mentioned data suggest that:
  - it is necessary to analyze all study programmes in order to:
    - evaluate significance and organization of professional practice within the programme and
    - assess the steps necessary to improve this part of the program.
2. Education for requirements of labour market (i)

- Both, teachers and students, have a certain reserve with regard to how the study program prepares students for the labour market.

- The average score, for both categories, was about 2.15 (1 – strongly disagree; 4 – strongly agree).

- The data shows that in some faculties’ students and teachers similarly estimate this category while there are faculties where the perception of teachers and students in this regard is significantly different.

- Generally, students in only 2 of 12 University constituents surveyed estimate that the curriculum prepares them for the labour market well (average >2,5).
Figure 2: Means of student assessment for the question, "This study program is preparing me well for the labor market"
Education for requirements of labour market (ii)

- Teachers give the lowest grade to the general competence of students for entering the labour market after the completion of existing programs of study (the average estimate of 2.15).

- Somewhat better is assessed level of acquired skills at the graduate level of study (average estimate 2.34) and modernity of programs and their comparability with related programs of study in EU (average estimate 2.46).

- Teachers assessed the best the level of students competence for further education (average score 2.58).
Table 2: Means of teachers' assessment of the study programs
(1 - strongly disagree; 4 - strongly agree)

<table>
<thead>
<tr>
<th>Constituents</th>
<th>Study program prepares students well for further education</th>
<th>Study program prepares students well for labour market</th>
<th>Graduate level focuses on the acquisition of specific skills needed in the labour market</th>
<th>The study program has been modernized and comparable with international programs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academy of Applied Arts</td>
<td>2.76</td>
<td>1.95</td>
<td>2.00</td>
<td>2.47</td>
</tr>
<tr>
<td>Faculty of Economics</td>
<td>2.57</td>
<td>2.07</td>
<td>2.21</td>
<td>2.64</td>
</tr>
<tr>
<td>Faculty of Tourism and Hospitality Management</td>
<td>2.76</td>
<td>2.28</td>
<td>2.39</td>
<td>3.06</td>
</tr>
<tr>
<td>Faculty of Humanities and Social Sciences</td>
<td>2.58</td>
<td>1.99</td>
<td>2.03</td>
<td>2.22</td>
</tr>
<tr>
<td>Faculty of Civil Engineering</td>
<td>2.64</td>
<td>2.45</td>
<td>2.83</td>
<td>2.90</td>
</tr>
<tr>
<td>Faculty of Medicine</td>
<td>2.46</td>
<td>2.04</td>
<td>2.27</td>
<td>2.26</td>
</tr>
<tr>
<td>University Department of Physics</td>
<td>2.71</td>
<td>2.41</td>
<td>2.88</td>
<td>2.50</td>
</tr>
<tr>
<td>University Department of Informatics</td>
<td>3.07</td>
<td>2.67</td>
<td>3.36</td>
<td>3.00</td>
</tr>
<tr>
<td>University Department of Mathematics</td>
<td>3.24</td>
<td>2.81</td>
<td>3.27</td>
<td>2.60</td>
</tr>
<tr>
<td>Faculty of Maritime Studies</td>
<td>2.66</td>
<td>2.33</td>
<td>2.20</td>
<td>2.55</td>
</tr>
<tr>
<td>Faculty of Law</td>
<td>2.21</td>
<td>1.79</td>
<td>1.82</td>
<td>2.28</td>
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<tr>
<td>Faculty of Teacher Education</td>
<td>2.85</td>
<td>2.46</td>
<td>2.65</td>
<td>2.62</td>
</tr>
<tr>
<td>Faculty of Engineering</td>
<td>2.49</td>
<td>2.13</td>
<td>2.44</td>
<td>2.41</td>
</tr>
<tr>
<td><strong>Average</strong></td>
<td><strong>2.58</strong></td>
<td><strong>2.15</strong></td>
<td><strong>2.34</strong></td>
<td><strong>2.46</strong></td>
</tr>
</tbody>
</table>
Many teachers give low estimates to the students’ preparation for the labour market as well as to the required market competencies developed at the graduate level of study.

This fact is particularly surprising for those faculties that have retain "traditional" integrated scheme of its core academic programs and, in fact, the programs themselves are not significantly reformed (law, medicine).

Surprising are such low estimates of output competencies required in the labour market, because they come from the very creator and performer of study programmes at the University.

It is obvious that it is necessary to make deep institutional analysis on how to develop required competencies for further studies as well as those needed for successful employability of graduate students.
3. Employment opportunities

- Employment opportunities assessment shows that 50% of the students do not expect difficulty with employment or they have hope of employment in a reasonable time.

- The positive is the fact that 5.4% of the students have provided employment before the end of the study.

- The fact that 34% of all students surveyed expect great difficulty in finding employment is of high concern.
Students' assessment of employment opportunities after graduation

- I expect great difficulties
- I already have secured a job after graduation
- I hope to employment within a reasonable time
- I do not expect major difficulties
- still do not think about it
The expressed interest of students for employment upon study completion, showed a significantly greater interest for employment of students of graduate and integrated studies, in comparison with students completing undergraduate studies.

While 48.3% of undergraduate students express possibility of looking for employment upon graduation, almost 90% of students who complete graduate or integrated studies plan to seek for employment.

Within this student population grows the proportion of those who will try themselves in starting their own business.

There is need to think about how to further develop students entrepreneurial competencies because this option has been chosen in only 9-15% of students, depending on the study.
Figure 4. Student plans on employment after graduation
CONCLUSION (i)

Research results indicate that there is the need for certain actions that will contributed to the employability of bachelors and to development of necessary labour market skills of graduate students:

(i) to clearly define the learning outcomes at the bachelors level;

(ii) to survey of employers in public and private sectors in order to define required knowledge/skills/competencies;

(iii) to monitor the employability of bachelors and graduates in order to define the enrolment policy;

(iv) to develop an alumni system (to analyze the adequacy of delivered and acquired knowledge/skills/competences);

(v) to adjust the curricula to the needs of society and the labour market.
(vi) to analyze the experiences of European institutions (for comparison of the results obtained in defining the knowledge/skills/competencies), and to conduct consultation with European experts for the implementation of the Bologna process;

(vii) to develop Office for a career at the University of Rijeka;

(viii) to develop a system for lifelong access to education and recognition of formal and informal education in order to create a flexible and transparent education paths;

(ix) to complete work on the National Qualifications Framework and its alignment to the European Qualifications Framework.
This paper is based on the Report of the first five years of the Bologna process at the University of Rijeka conducted in 2010.
Questions for discussion:

► How to include employers into discussion of bachelors’ competences?
► How to evaluate learning outcomes “in practice”?
► How to assess labour market needs efficiently?
► Should HE develop student competences presently needed by labour market or for fast and continuous adjustment to labour market needs?