

A photograph of two men sitting at a table in a meeting. The man on the left is seen from the side, wearing a dark suit. The man on the right is wearing a blue and white plaid shirt and is looking towards the man in the suit. They appear to be in a discussion. The background shows a blurred office or conference room setting with chairs and tables.

**Students' experience of the present status of  
integration of research into higher education at the  
UoM - evidence from a master thesis research**

HERE seminar:  
Implementing Research Based Education  
November 26, 2015  
University of Montenegro

# Overview

- Master thesis context
- Research design
- Research results

# Master thesis

- **Title:** Integration of research and teaching at the level of academic undergraduate studies at the UoM and opportunities for intervention through education policy
- Master study: Education Policy, within the scope of TEMPUS project
- Faculty of Philosophy in Nikšić, University of Montenegro
- Thesis defence June 26, 2014
- Research conducted in May and June 2013

# Research field of the thesis

- Research-teaching nexus OR
- Undergraduate research
- Prof. Peter Scott (2006): “ Relationship between teaching and research is amongst the most intellectually tangled, managerially complex and politically contentious issues in mass higher education systems”



# Scope of master research



★ NEW ★  
SKILLS

1.

- Looking at research knowledge and competencies (understanding research process and skills for conducting research) on a sample of students of the last year of academic undergraduate studies at the UoM



POLICY  
IMPLEMENTED

2.

- Overview of policies and practice in countries which have developed effective instruments of integrating research into undergrad. HED and comparison with existing national policies



3.

- Development of original research tools for conducting empirical research about students' attitudes about integration of research into their undergraduate studies

# Aim of the research

- Initial collecting and systematization of data on the status of integration of research and higher education at the level of undergraduate studies at the University of Montenegro
- Research method: Empirical research of student population - poll

# Research hypothesis

- **Main:**

First level academic studies at the University of Montenegro do not include the research to a sufficient level and therefore they are not in line with strategic goal of Montenegro to make higher education research oriented

- **Auxilliary:**

- 1. Research learning outcomes are not to a sufficient level existent in the realised curricula
- 2. There are significant differences in the existence of the research learning outcomes depending on the discipline studied. These differences depend on the type of the discipline (hard/ soft or fields of study), as well on the length of the undergraduate study (3 / 4 / 5/ 6 years).

# Measuring tools – research variables

- Research-related learning outcomes (a scale of 6 outcomes, according to Verburgh, Schouteden, & Elen (2012))
  1. Knowledge gained through research results;
  2. Insight into methodological and theoretical underpinnings of research;
  3. Development of particular practical research skills;
  4. Development of competencies to be a researcher – i.e. competencies to create and conduct a research;
  5. Development of critical attitude towards information, knowledge and knowledge construction;
  6. Development of curiosity towards evolutions in the discipline.

# Design of empirical research

553  
respondents

- Student poll at the last year of undergraduate studies at almost all departments of UoM – their perception of the coverage of RRL outcomes by the study programme

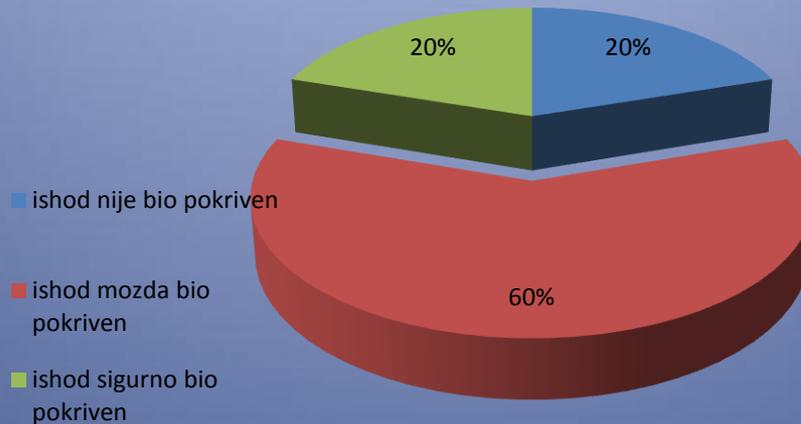
Disciplines

- Crossed with types of discipline (hard / soft – Biglan, 1973), field of study (Frascati, 2002), study programme and length of the study

# Results – 1

## *Assessment of the coverage of the RRL outcome by the study programme*

**LO1: Knowledge gained through research results;**



- Dominant insecurity of respondents whether the RRLO have been covered by the curriculum (study programme), from 46 to 60%
  - Present / not present – rather equal APART from LO n 6: 38% vs 18%
5. Development of critical attitude towards information, knowledge and knowledge construction;
  6. Development of curiosity towards evolutions in the discipline.

## Results – 2

*Dependence of the coverage of LO upon the discipline (hard / soft)*

- Results are statistically significant (Sig <0.05): there is statistically significant relationship between the discipline and the assessment about the coverage of RRLO.
- Strength of the relationship is not big , close to medium:  $\varphi=0.185$ .
- Students of soft disciplines have, to a higher %, assessed that the LO 1, has been covered by the programme (26,3% compared to students of hard disciplines (13,6%).
- Narrower LO are equally not present in the disciplines. The poorest result is presented by students of hard disciplines – below 10%

3. Development of particular practical research skills;
4. Development of competencies to be a researcher

## Results – 3

### *Dependence of the coverage of LO upon the field of study*

- Results statistically significant: Sig <0.05
- Strength of the relationship is big:  $\varphi=0,248$ .
- Interesting results for some particular fields:
  - Agriculture – 30% of students assessed the LO to be covered, a significantly higher % than in other fields within hard disciplines: 15.5% natural sciences, 11.2% technical, and 12.9% medical sciences
  - Particularly good result for the study programme of Physics (but small sample – no. of students at the course)
- Conclusion: at the level of study programmes there are strong factors influencing undergraduate research (culture at the department; history; working conditions; people...).

## Results – 4

### *Dependence of the coverage of RRLO upon the length of the study*

- There is no statistical significance between the coverage of LO and the length of the study: Sig=0.310.
- Research has shown that students more easily progress towards postgraduate studies if they were exposed to research work at the first level of study.
- Prolonged years of undergraduate study at the UoM are not used to better introduce students into the research work and prepare them for an academic career!

Thank you very much for your attention!

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