USING INSTITUTIONAL RATIONALITIES IN SUSTAINING RESEARCH PRACTICE IN UNIVERSITIES OF APPLIED SCIENCES

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Track 5 - Sustaining Research Practice & Excellence

A (INTER)NATIONAL CASE STUDY IN HIGHER PROFESSIONAL EDUCATION IN THE AUTOMOTIVE DOMAIN
INTRODUCING

PhD study on Institutional Rationalities

Institutional Rationalities:
- Coherent combination of Procedures (prevailing rules) and the acting

Research Question
What institutional rationalities are perceived by professionals cooperating in the Adaptive Learning Triangle of a University of Applied Sciences in the Automotive Domain?

Contribution in Accelerating the Future of Higher Education
INTRODUCTION

• Research Practice in Universities of Applied Sciences
  - Research @ UASs
  - Variety in sustaining research practice

• Societal developments may require sustain research practice
  - Systematical support

• Case study in three UASs
  - Arnhem, Rotterdam & Saarbrücken
  - Institutional Rationalities of the Professionals
BACKGROUND

Research and Innovation in UASs
- Industry 4.0 & 5.0
- Pressure on Curriculum Innovation

Research and Education
- Wide range of perspectives
- Important: cooperation
- Different worlds

Institutional Rationalities - A new perspective to shape the cooperation
- Using the descriptions of rationality by Max Weber (1864-1920)
METHOD

Case studies
Total 35 interviews
i. Education - 12
ii. Industry - 16
iii. Research - 17

Semi Structured Interviews, using a framework of six dimensions
1. Economy
2. Education
3. Organization
4. Policy & Law
5. Project management
6. Research
## RESULTS (i)

<table>
<thead>
<tr>
<th>Dimension Organization</th>
<th>Case</th>
<th>Teaching staff</th>
<th>Employed by</th>
<th>Research</th>
<th>Participation in Research</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Arnhem</td>
<td>Master level</td>
<td>Institute</td>
<td>Research Groups &amp; Centers of Expertise</td>
<td>Passive</td>
</tr>
<tr>
<td></td>
<td>Rotterdam</td>
<td>Doctorate level</td>
<td>Local state</td>
<td>Professors</td>
<td>Active</td>
</tr>
<tr>
<td></td>
<td>Saarbrücken</td>
<td></td>
<td></td>
<td>None</td>
<td></td>
</tr>
</tbody>
</table>
RESULT (ii)

<table>
<thead>
<tr>
<th>Case</th>
<th>Education</th>
<th>Industry</th>
<th>Research</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arnhem</td>
<td>Spending hours</td>
<td>‘Return on investment’, is leading</td>
<td>Education requirements is are in conflict with clients’ goals</td>
</tr>
<tr>
<td>Rotterdam</td>
<td>Check in/out is obligatory, but no administration</td>
<td>Innovation is important, money is not leading</td>
<td>More projects leads to less teaching</td>
</tr>
</tbody>
</table>

Innovation is important, money is not leading
<table>
<thead>
<tr>
<th>Dimension Research</th>
<th>Education</th>
<th>Industry</th>
<th>Research</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arnhem</td>
<td>Lecturer experienced added value for students</td>
<td>Pragmatic towards research; t’s a business model</td>
<td>A tendency to keep distance from education*</td>
</tr>
<tr>
<td>Rotterdam</td>
<td>Research papers in teaching</td>
<td>UAS research requires attention and <em>(quote)</em> &quot;don’t get frustrated with the level of design&quot;</td>
<td>Research projects should involve students, in real students are disregarded*</td>
</tr>
</tbody>
</table>

* Master students are embraced
CONCLUDING

General: Curriculum versus State of the Art

Research Community: … in real (bachelor) students are disregarded

Education Community: …experiences the added value for students

Methodological similarity on research. This may support sustaining research practice

Some results mirror Weber:
Practical rationality - “The industry is budget and time calibrated, the UASs are knowledge calibrated”
Formal rationality - “Due to their focus on theory lecturers persist in inflexibility”
FORTHCOMING RESEARCH

Profound difference in the teacher: Master ⇔ PhD in the field taught
➢ Research practice: assess the impact of teachers on the students’ level on research attitude (skills)

“Organization” ⇔ Dimensions of Institutional Rationality: exploring the phenomena of boundary organizations
QUESTIONS
Institutional Rationalities as a new perspective to shape the cooperation
Max Weber (1864-1920)
- practical rationality - everyday self-interest;
- formal rationality - general rules, laws, regulations
- theoretical rationality - increasing precision in theoretical frameworks
- material rationality - political or aesthetic value system
SCHOOL OF ENGINEERING AND AUTOMOTIVE

Started in 1992 at the Hogeschool van Arnhem en Nijmegen (HAN), as a contract researcher.

Some HAN Data (2020):
• Number of enrolled students 37,408
• Bachelor students 34,617
• Associate degree students 1,050
• Master students 1,741
• Number of HAN staff 4,010
• 71 Bachelor’s, 21 Master's programmes
• Number of Professors 46