Impact Analysis of Quality Assurance in Higher Education. Methodology, Design and Preliminary Results

Theodor Leiber
evalag (Evaluation Agency Baden-Wuerttemberg), Mannheim, Germany

2015 CEENQA Workshop and General Assembly “Impact of Quality Assurance and Accreditation”
Hosted by the Slovenian Quality Assurance Agency for Higher Education
May 22-23, 2015, City Hotel, Ljubljana, Slovenia

© Theodor Leiber – leiber@evalag.de / www.evalag.de
• Why impact analysis of (external) quality assurance?
• Methodological options and methodology of (E)QA impact analysis in higher education institutions

• The IMPALA project
  – Partners
  – Research design
  – Objectives
  – The case studies
  – Project status and preliminary results

• Conclusions
Impact of (External) Quality Assurance

- More than two decades of external quality assurance (EQA)
- EQA is expected to have an impact on study programmes and institutions
- HEIs complain about high evaluation workload and need effective and efficient QA procedures (e.g., massification; economy measures in HE; national and global competition)
- Governments complain about evaluation costs

**BUT**

- Only few *(ex-post)* impact analyses of EQA
- No simultaneous impact analyses (accompanying EQA)
- Students, teachers, QA staff are not considered [focus on institutional leadership (and peer assessments)]
- Need for know-how about impact analysis in QAAs and HEIs
Why do we need impact analyses?

- Assessment **which part of EQA achieves its intended effects** in HEIs
- Assessment **which part of EQA has which non-intended effects**
- Assessment **in which ways** EQA impacts HEIs (“causal social mechanisms”)

→ Insights for the **strategic and systematic improvement of EQA procedures**
→ Further **professionalisation** of QA staff in QAAs and HEIs
→ **Improving on efficiency and quality development in HEIs**

However: new methods and instruments for QA agencies seem not to be in sight (exception, probably(?): CSS and “big data” approaches)
## Typical EQA events of expected causal influence (coarse-grained)

<table>
<thead>
<tr>
<th></th>
<th>Before</th>
<th>During</th>
<th>After</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Criteria</strong></td>
<td>Reflection (ideas for change); adjustment</td>
<td>Reflection; (obvious, direct changes; adjustment)</td>
<td></td>
</tr>
<tr>
<td><strong>Self-evaluation</strong></td>
<td></td>
<td>Reflection</td>
<td></td>
</tr>
<tr>
<td><strong>Exchange with peers</strong></td>
<td></td>
<td>Reflection</td>
<td>Reflection; recommendations for follow-up</td>
</tr>
<tr>
<td><strong>Assessment report</strong></td>
<td></td>
<td>Reflection; (obvious, direct changes)</td>
<td>Reflection; recommendations for follow-up</td>
</tr>
<tr>
<td><strong>Formal decision</strong></td>
<td></td>
<td></td>
<td>Accreditation requirements (conditional accr.); follow-up with fulfillment</td>
</tr>
<tr>
<td><strong>No formal decision</strong></td>
<td></td>
<td></td>
<td>“Free” follow-up</td>
</tr>
</tbody>
</table>
Methodological options for impact analysis

- Experimental design – repeatability
  - Unfeasible for impact analysis of QA in HEIs
- Control group design – define control system (with intervention vs. without intervention)
  - Unfeasible for impact analysis of QA in HEIs
- **Before-after comparison design** – compare system after intervention with system before intervention
- **Ex-post analysis design** – gather information and assess system after QA procedure has ended
Causal social mechanisms model
with reference to Coleman’s boat (Coleman 1994, p. 8)

Institutional & programme change
(processes & structures)

Institution
Macro level

Institution
Meso level

Actor
Micro level

Preferences

Actions

1: situational mechanism
2: action-formation m.
3: transformational m.
4: statistical correlation only

(e.g., other QA processes; any HEI-internal & HEI-external influences (e.g., HEI policy)

© Theodor Leiber – leiber@evalag.de / www.evalag.de
Methodological elements of impact analysis

• **Before-after comparison** design
  Allows to analyse **if** and **when** and **how** an effect has been achieved
  – **Causal mechanism hypotheses**
    Allow to analyse how effects are achieved
  – **Standardised surveys** with different target groups (academic staff, students, QA staff, leadership etc.)
    Allow to analyse goals, processes, structures, preferences, actions and institutional & programme change
  – **Structured interviews** with key actors
    Allow to analyse causal mechanisms
  – **Document analysis/observations**
    Allow to analyse goals, processes, structures, actions and institutional & programme change
IMPALA Project

• “Impact Analysis of EQA Processes in HEIs” http://www.evalag.de/impala
• Funded by European Commission (LLP)
• Eight main project partners: four QAAs and four HEIs in four countries
  – Finland: FINEEC & Jyväskylä University of Applied Sciences
  – Germany: evalag & University of Stuttgart
  – Romania: ARACIS & Technical University of Civil Engineering Bucharest
  – Spain: AQU Catalunya & Universitat Autònoma de Barcelona
• Further partners
  – ENQA (Brussels)
  – ESU (Brussels)
  – Prof. Dr. Bjørn Stensaker (Univ. of Oslo)
IMPALA research design

EQA procedure

Baseline study
Before procedure
- Online questionnaires
- Structured interviews
- Document analysis/observations

Midline studies
During procedure
- Online questionnaires
- Structured interviews
- Document analysis/observations

Endline study
After procedure
- Online questionnaires
- Structured interviews
- Document analysis/observations

Comparison of base-, mid- and endline study

© Theodor Leiber – leiber@evalag.de / www.evalag.de
IMPALA research design

- EQA criteria
- EQA procedure
- Interventions, e.g. self-assessment, site-visit, report

Change in processes, structures, preferences, actions and institutional change

Causal process for change

Baseline study
Midline study
Endline study

Status quo before EQA
Status after EQA

© Theodor Leiber – leiber@evalag.de / www.evalag.de
IMPALA objectives

• Design of a **generic methodology** for impact analysis, that can be applied by QAAs

• **Publications** on state of the art of methodology and impact analysis results

• Application and test of the methodology in four **case studies** in the four partner HEIs
  – Different EQA procedures
  – Different national settings

• **Practical guide/manual** for impact analysis
  – Inform about methodological options
  – Present and describe exemplary survey instruments
  – Discuss strengths, threats and practice problems of methodology and application
IMPALA case studies

- Finland: international EURACE programme accreditation
- Germany: internal programme review process (module evaluation)
- Romania: national institutional audit and programme accreditation
- Spain: national programme (pre-)accreditation
IMPALA project status

- Methodology developed
- European conference seminar held (May 2014)
- Baseline studies completed
- Midline studies currently running or planned for Summer 2015
- Two papers published

- Special issue of Quality in Higher Education in preparation (“Impact Evaluation of QA in HE. Exploring Stakeholder Perspectives between Methodology, Policy and Practice”)
IMPALA preliminary results (baseline study)

• Online questionnaire asks for
  – Preferences (attitudes), actions and institutional change (observations)
  – Observed change in the last year
  – Reasons for change
• Objective is to compare base-, mid-, and endline studies
• Stakeholders surveyed
  – Students
  – Academic staff (teachers)
  – QA staff
  – HEI leadership

© Theodor Leiber – leiber@evalag.de / www.evalag.de
IMPALA online questionnaire

• Questionnaire Items
  – Course type in study programme
  – QA instruments used in programme
  – Competence-oriented assessment
  – Discussions of study programme
  – Attitude towards internal QA
  – Attitude towards external QA
  – Perceived attitude of leadership towards QA
  – Observed impact and cost/benefit of QA
IMPALA sample results

How often do teachers of your study programme meet in order to discuss the further development of the study programme?

- At least once every three months
- At least once a year
- Less than once a year

Have you in the last year seen a change with respect to the frequency of teachers' meetings for further developing the study programme?

- Yes, the meetings became less frequent
- No, no changes
- Yes, the meetings became more frequent

Who or what initiated the change?

<table>
<thead>
<tr>
<th></th>
<th>Frequency of responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>RO</td>
<td></td>
</tr>
<tr>
<td>- students</td>
<td>1</td>
</tr>
<tr>
<td>- teaching staff</td>
<td>13</td>
</tr>
<tr>
<td>- HEI management</td>
<td>7</td>
</tr>
<tr>
<td>External QA (e.g., accreditation)</td>
<td>2</td>
</tr>
<tr>
<td>Internal QA (e.g., surveys)</td>
<td>6</td>
</tr>
<tr>
<td>Legal requirements</td>
<td>0</td>
</tr>
<tr>
<td>External Stakeholders</td>
<td>0</td>
</tr>
<tr>
<td>ES</td>
<td></td>
</tr>
<tr>
<td>- students</td>
<td>0</td>
</tr>
<tr>
<td>- teaching staff</td>
<td>2</td>
</tr>
<tr>
<td>- HEI management</td>
<td>2</td>
</tr>
<tr>
<td>External QA (e.g., accreditation)</td>
<td>2</td>
</tr>
<tr>
<td>Internal QA (e.g., surveys)</td>
<td>0</td>
</tr>
<tr>
<td>Legal requirements</td>
<td>1</td>
</tr>
<tr>
<td>External Stakeholders</td>
<td>0</td>
</tr>
</tbody>
</table>

© Theodor Leiber – leiber@evalag.de / www.evalag.de
**IMPALA sample results**

In general, what is your attitude towards external quality assurance and quality development in learning and teaching?

- Negative
- Neutral
- Positive

Has your attitude towards external quality assurance and quality development in learning and teaching changed in the last year?

- Yes, in a negative direction (less approval)
- No, no change in my attitude
- Yes, in a positive direction (more approval)

What has changed your attitude towards external quality assurance?

<table>
<thead>
<tr>
<th>Frequency of responses</th>
<th>RO</th>
<th>ES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internal procedures of quality assurance</td>
<td>10</td>
<td>2</td>
</tr>
<tr>
<td>External procedures of quality assurance</td>
<td>8</td>
<td>2</td>
</tr>
<tr>
<td>Taking note of peer reports</td>
<td>6</td>
<td>2</td>
</tr>
</tbody>
</table>
IMPALA sample results

Do the procedures of quality assurance and quality development in learning and teaching which are carried out in your HEI, have effects which are observable for you?

- No
- Yes

In your view, have these effects changed in the last year?

- Yes, in a negative direction (decreasing effectivity)
- No, no change
- Yes, in a positive direction (increasing effectivity)
Conclusions

• Impact analysis (of QA in HE) is complex
• IMPALA methodology seems to be promising
• Baseline data of case studies demonstrate that
  – General attitudes towards EQA reported by stakeholders seem to be markedly different in different countries (e.g., more positive in Finland and Romania as compared to Germany and Spain)
  – (E)QA effects observed by stakeholders recently are not at all classified as negative
• Further research and a more detailed look at the available data is necessary
• IMPALA project is continued (until Autumn 2016)
<table>
<thead>
<tr>
<th>Activity</th>
<th>Participants</th>
<th>Time &amp; place</th>
</tr>
</thead>
<tbody>
<tr>
<td>Special Issue of Quality in Higher Education</td>
<td>Seven papers on the state of the art of impact analysis in HE</td>
<td>2015</td>
</tr>
<tr>
<td>4th project meeting</td>
<td>Stocktaking and discussion of previous results Inspection of impact data Project partners</td>
<td>06-07 Oct 2015 Barcelona (AQU Catalunya)</td>
</tr>
<tr>
<td>ENDLINE STUDY</td>
<td>Agencies + HEIs</td>
<td>Nov 2015 – February 2016</td>
</tr>
<tr>
<td>5th project meeting</td>
<td>Stocktaking and discussion of previous results Inspection of impact data Planning of conference Project partners</td>
<td>Febr 2016 Bucharest (ARACIS)</td>
</tr>
<tr>
<td>INTERNATIONAL CONFERENCE (in collaboration with ENQA)</td>
<td>Public conference to present and discuss project results Project partners + keynote speakers + participants</td>
<td>April 2016 Barcelona (AQU Catalunya)</td>
</tr>
<tr>
<td>PROJECT PUBLICATION</td>
<td>Publication based on project and final conference Project partners + keynote speakers</td>
<td>(June –) Sept 2016</td>
</tr>
<tr>
<td>Euro-Region training workshops</td>
<td>Four training workshops with QM managers, students, experts, and policy makers evalag AQU ARACIS FINEEC</td>
<td>Sept 2016 Germany Spain Romania Finland</td>
</tr>
</tbody>
</table>
References (choice)


Gerring, J. (2010) Causal mechanisms: yes, but …., Comparative Political Studies, 43(11), pp. 1499-1526


