On **INNOVATIVE GOVERNANCE** of **HIGHER EDUCATION INSTITUTIONS**: **QUALITY LITERACY, PERFORMANCE INDICATORS** and a Focus on **LEARNING and TEACHING**

**Theodor Leiber**
Evaluationsagentur Baden-Württemberg, Mannheim, Germany
Philosophisch-sozialwissenschaftliche Fakultät, Philosophie und Wissenschaftstheorie, Universität Augsburg, Germany

Conférence
**FORUM INNOVATION**
Réseau de Recherche sur l’Innovation (RRI) – 39 rue Gaspard Neuts, 59240 Dunkerque
Université du Littoral de Côte d’Opale, France, 1-2 June 2021
- Challenges & Threats for Higher Education
  - On Innovative Governance – in Higher Education
    - Governance: Definition & Criteria
    - Quality Literacy relying on PDCA/SSARPM & Performance Indicators
      - Used (Innovative) Performance Indicator Models
  - On Innovative Governance in HE Learning & Teaching
    - Challenges & Motivations
    - (Innovative) Methods for Gathering PI Information & Data (in HE)
      - Innovative Performance Indicators for Governance and L&T

- Summary
A “general model” of INNOVATIVE GOVERNANCE & ORGANISATIONAL LEARNING …

Who isn’t in need of orientation knowledge and action competencies …?

… Particularly …
Higher Education at the Centre of a Complex Policy Eco-System
Source: Adapted from Hazelkorn, 2020.

Challenges & Threats for Higher Education
Challenges to the University as Functioning Organisation

- **Multiple-hybrid character** (e.g. many tasks, organisational levels, responsibilities and stakeholder interests, partially in permanent contradiction and competition for all kinds of resources → **Paradoxical, contested subsystems & situations**) – **SUPERCOMPLEXITY** (Barnett, 2000; 2015; van Niekerk, 2016)

- **Massification** of HE

- Growing importance of **Transformative Digitalisation** and **remote** learning and teaching

- **Incompetent HEI leaders & managers** (3 types of incompetence: ineffective behavior; dysfunctional b.; unauthentic b.; see Patel & Hamlin 2017)

- **Deficient academic self-governance & quality culture competencies**

- **Third Mission / service to society, societal responsibility / transdisciplinarity**

- **Heightened cyber security risks** that arise from greater dependence on digital technologies

- …
Threats to the University as a Critical Institution

• **Non- or anti-democratic** context (e.g. dictatorial states; dominant religions; surveillance, especially of the digitalised university)

• **Anti-scientific & anti-enlightenment** populism (e.g. distribution of fake news; conspiracy ideologies)

• **Deficient** provision/promotion of **personality formation** including education in ethics, philosophy of science, sustainable development & basics of sciences

• **Other erosion of freedom of education** (learning and teaching) & **research** (e.g. economical/ entrepreneurial **instrumentalisation** of HEIs; reduction to vocational training & transfer of skills; students as teaching-recipients/customers instead of self-directed learners)

• …
Definition of – Multi-level – Governance

- Design, implementation & use of policies, structures & practices (processes) for facilitating goal-oriented decision-making on various organisational levels

Governance

- Requires coordination & compromise of different or conflicting goals of multiple interest groups & stakeholders
- Strongly depends on transparent policies including intertwined & interdependent
  - Rules & regulations
  - Distribution of responsibilities
  - Organisational structures & processes
  - Relevant & adequate leadership competencies
Governance: Definition & Criteria

Traditional HE governance

- **Bureaucratic control of input targets** by the state (e.g. funding, personnel selection and training)
- **Shared decision-making** of elected bodies (rectorate, senate, faculty council, faculty dean, …) with the exception of purely academic matters of research and teaching
- **Strong autonomy** of faculties/departments & its individual members (academic staff) with respect to purely academic matters of research and teaching

(Varieties & variants of) **NPM**

- **Increased privatisation & economic integration** between interest groups and stakeholders at the expense of state involvement
- **Managerial accountability** weakens shared decision-making
- (Increased) **Control of output targets (performance assessment)** in comparison with the expectations of stakeholders affects academic autonomy
QUALITY LITERACY relying on PDCA/SSARPM & Performance Indicators
Possible Perspective on Innovative Governance – Shared epistemic governance

QUALITY LITERACY
Stakeholders’ Competencies in
Strategy; Management; Practice; Culture
Modes of Governance: Joint Decision-Making

ORGANISATIONAL DEVELOPMENT
via QUALITY ENHANCEMENT
based on various types of evaluations (primarily relying on PDCA cycles)
QUALITY MANAGEMENT SYSTEM

Quality Management Measures
(Scientific methodology & Evaluations: Peer review; Reputation measures; Programme & institutional accreditations; Rankings; Benchmarking; Balanced Scorecard; Target agreements etc.)

PERFORMANCE INDICATORS
Assessment of achievements (assurance, enhancement)

Qualitative and quantitative performance data and information
### Table 3a. Conceptual framework of QUALITY LITERACY in higher education, part 1: internal actors, example of teachers

<table>
<thead>
<tr>
<th>Main goals of higher education stakeholders</th>
<th>Quality literacy (= Shared epistemic governance)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Teachers</strong> aim to enable &amp; support: future competencies including personality development; academic qualification &amp; skills; fitness for employability; fitness for society; fitness for continuing education (comprehensive holistic approach)</td>
<td><strong>Quality strategy competencies</strong>&lt;br&gt;Observe permanent requirements for compliance of L&amp;T with&lt;br&gt;- <strong>performance indicator-related</strong> L&amp;T standards&lt;br&gt;- motivating students for <strong>THCSDL</strong>&lt;br&gt;- enhancement orientation&lt;br&gt;- fitness for/of purpose&lt;br&gt;- value for money</td>
</tr>
</tbody>
</table>

**Pls are indispensable for governance of quality enhancement & Quality literacy does not have to be completely reduced to Pls or fully mapped by Pls**

---

© Prof. Dr. Dr. Theodor Leiber – leiber@evalag.de – http://www.evalag.de – http://www.evalag.de/leiber

(Leiber & Seyfried, 2021)
Quality Culture Competencies – a possible selection

(CUC [Committee of University Chairs], 2020, *The Higher Education Code of Governance*, 6)

<table>
<thead>
<tr>
<th>Competency</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Integrity</td>
<td>transparency, accountability, honesty, <em>freedom of speech</em> and <em>academic freedom</em></td>
</tr>
<tr>
<td>Sustainability</td>
<td>financial and environmental</td>
</tr>
<tr>
<td>Inclusivity</td>
<td>equality, diversity, accessibility, participation and fair outcomes for all</td>
</tr>
<tr>
<td>Excellence</td>
<td><em>high-quality research</em>, scholarship and teaching</td>
</tr>
<tr>
<td>Innovation and growth</td>
<td>social, economic and cultural</td>
</tr>
<tr>
<td>Community</td>
<td>public service, citizenship, collegiality, collaboration</td>
</tr>
</tbody>
</table>

Critical: commitment to economic growth
Concretisation of Quality Literacy: **SSARPM as Paradigm of Performance Assessment & Enhancement & Organisational Development** (Leiber, 2019a, 324ff.).

<table>
<thead>
<tr>
<th>SEVEN-STEP ACTION RESEARCH PROCESS MODEL (SSARPM)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>[Prepare]</strong></td>
</tr>
<tr>
<td><strong>Take stock</strong></td>
</tr>
<tr>
<td><strong>Diagnose</strong></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>Activate</strong></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>Plan (P)</strong></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>Do (D)</strong></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>
| **Check (C)** | Consol...
Used (Innovative) Performance Indicator Models

- Programme Accreditation
- **Institutional (System) Accreditation**
- International Research Rankings (e.g. ARWU, THE, CWTS Leiden, …) (cf. Leiber, 2017)
- (National) L&T Rankings/Ratings (e.g. CHE, TEF, …)
- **U Multirank** (international ratings based on users’ choice)
- Bibliometrics/scientometrics (statistical analysis of publications and their citations)
- Balanced Scorecard (BSC) (customer; finances; internal processes; learning & growth)
- **SEESs = Student Experience and Engagement Surveys** (e.g. NSSE (US), SES (AUS), SAES (UK), ISSE (IRL), Studierenden(zufriedenheits)befragungen (D), …) (cf. Leiber, 2020)
- Drop-out surveys
- National and international tracer studies
- (other, occasional) Evaluations (of institutes, centres, subject fields, research projects, study programs, QM systems, …)
Performance/Quality Agreements between the state & individual universities (e.g. Netherlands)

Performance-oriented allocation of funds („leistungsorientierte Mittelvergabe“ = LOM) (e.g. incentives to increase performance & the efficient use of resources through competitive distribution based on quantitative performance indicators)

Reporting systems on various administrative levels (e.g. federal level, e.g. “Bildung in Deutschland”; federal states’ levels (“Landesberichtssysteme”); university level)

Performance Data Analytics (‘Big Data’) …

Most of these can be informed & supplemented by

SQELT comprehensive Performance Indicator Set for L&T (https://www.evalag.de/sqelt)

A fully developed SSARPM is not applicable to all of these

- Lack of data
- Highly aggregated data
- …
Challenges to the University as Education Institution

- **Creative & innovative processes** in core performance areas (research; L&T)
- Curriculum development & L&T are **cooperation tasks** that require **shared responsibility**
- **Complicated L&T processes** (L&T environment; teaching processes; learning processes; learning outcomes & their assessment) in practice relying on **competitive, contested L&T theories** (behaviouristic; cognitivist; social; constructivist; humanistic)
- **Shift from teaching to learning / transformative self-directed learning (SDL)** (Bologna Process; EU Modernisation Agenda)
- **Shift from input process to L&T outcomes** (Bologna Process; EU Modernisation Agenda)
- **Student participation** (e.g. SEES)
- **Achieved learning outcomes & learning gain not easy to observe & assess** (e.g. impact analysis on level of individual learners; Learning Analytics) (about 60% of requested European HEIs struggle with, or cannot manage implementation of LO; 40% complain about insufficient resources; Gaebel et al., 2018)
Challenges & Motivations

Challenges to the University as Education Institution

• LLL / continuous education
• **Professionalisation & dissemination of pedagogies** (e.g. faculties/departments of education; teaching centres; institutional research)
• **Digital Transformation of L&T**
  – Virtual & blended L&T formats
  – Virtual & blended learning assessment formats
  – Personalised learning experience, AI, mixed reality technologies, …
• ...
(Innovative) Methods for Gathering PI Information & Data (in Higher Education)

- **Peer review** – qualitative

- **Systematic Qualitative Content Analysis (QCA)** (e.g. cf. Mayring, 2020) (and “hermeneutics”) applied to
  - Written **documents** – qualitative
  - Transcribed **interviews** (structured, semi-structured, narrative) with different stakeholder groups (e.g. students, teachers, researchers, leadership, QM, politics, employers, parents, …) – qualitative
  - Transcribed **focus group discussions** (semi-structured, narrative) with different stakeholder groups – qualitative
  - Written documented **open survey questions** (paper-and-pencil, online) with different stakeholder groups – qualitative

- **Statistical methods** applied to
  - **Closed questions** (paper-and-pencil, online) – quantitative

- **Bibliometrics** – quantitative
(Innovative) Methods for Gathering PI Information & Data (in Higher Education)

- **Performance Data Analytics** (Digital tracing and tracking) – quantitative
  
  - **Reports** generated from Learning Management Systems (LMSs) & Learning Analytics tools such as BlackBoard, Moodle, Desire2Learn (e.g. individual user tracking, course-based)
  - **Visualisation of student activity** for promotion of SDL processes via Student Activity Meter
  - Providing insight into **individual & group interactions with the learning content** via LOCO-Analyst
  - **Social network analysis** generated from Learning Analytics tools such as SNAPP (Social Networks Adapting Pedagogical Practice) (e.g. visualization of student relationships established through participation in LMS discussions)
  - **Individual & group monitoring** generated from Learning Analytics tools such as GLASS (Gradient’s Learning Analytics System) (e.g. visualization of student and group online event activity)
  - **Discourse analysis** generated from Learning Analytics tools such as COHERE (e.g. visualization of social and conceptual networks and connections)
### Performance Indicators of Governance

**LEADERSHIP’S COMPETENCIES to lead the implementation of VISIONS and GOALS**
(exemplary criteria include: establish a stable, shared long-term vision and a common sense of purpose; set clear, short-term achievable goals)

**LEADERSHIP’S COMPETENCIES to lead the implementation of BUDGETING**
(exemplary criteria include: establish budgets and a clear fund-raising strategy (grants, fees, philanthropy, sponsorship))

**LEADERSHIP’S COMPETENCIES to lead the implementation of PROCEDURES of STAFF PARTICIPATION & RESPONSIBILITY DISTRIBUTION**
(exemplary criteria include: consider views of stakeholders and partners; ensure staff embrace institutional aims & culture; get people to measure performance relative to aims; know people’s strengths; channel their energy and passion to maximum effect; place responsibility and control of information in the hands of people who do the work; have two-way communication meetings, with an emphasis on clarifying, testing & listening)

**LEADERSHIP’S COMPETENCIES to lead the implementation of a LEARNING ORGANISATION**
(exemplary criteria include: expect, and support staff, to strive for high standards; judge the system rather than people; manage morale, celebrate success, learn from failures; allow people doing the work freedom to experiment with method to improve performance; determine whether data on staff, communities or society would be useful to the institution)
INNOVATIVE Performance Indicators of Governance – selection, simplified

<table>
<thead>
<tr>
<th>Leadership’s Competencies</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>to lead the implementation of Risk Management</td>
<td>(e.g. data privacy, data security, finances, pandemics)</td>
</tr>
<tr>
<td>to lead the fostering of a Strategic Open Republic of Scholars &amp; Students</td>
<td>(Academic Community &amp; Institutional Autonomy, integrated into a democratic state)</td>
</tr>
<tr>
<td>to lead the implementation of an expressis verbis-commitment to (the Universal Declaration of) Human Rights</td>
<td>(or a related national Constitution) (OMCU [Observatory Magna Charta Universitatum], 2020)</td>
</tr>
</tbody>
</table>

For desired but widely missing leadership competencies see:
(Black et al. 2011; Black 2015, 61-62, Table 2; Hamlin & Patel 2017, particularly 6 ff.; Eversole et al. 2016; Lekchiri et al. 2018; Patel & Hamlin 2017; Patel et al. 2018; Ruiz & Hamlin 2018; Torres et al. 2015)

https://www.canada.ca/en/treasury-board-secretariat/services/professional-development/key-leadership-competency-profile.html
## Performance Indicators of Learning & Teaching Environment – L&T Analytics

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Description</th>
<th>Scope</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>NUMBER and/or PERCENTAGE OF STUDENTS WITH NONTRADITIONAL BACKGROUND</strong></td>
<td>(exemplary criteria include low-income; non-academic families; disadvantaged ethnic and religious groups)</td>
<td>(per higher education institution and/or per department/institute and/or per subject field and/or study programme)</td>
</tr>
<tr>
<td><strong>NUMBER and/or PERCENTAGE OF STUDENTS WHO USE NETWORKING OPTIONS PROVIDED BY THE HIGHER EDUCATION INSTITUTION THAT MEET THEIR STUDY INTERESTS</strong></td>
<td>(e.g. student research groups)</td>
<td>(per semester/study period)</td>
</tr>
<tr>
<td><strong>NUMBER and DURATION OF STUDENT INTERACTIONS WITH TEACHING STAFF IN THE CLASSROOM/ON DIGITAL PLATFORMS/DURING ADDITIONAL ACTIVITIES</strong></td>
<td>(per semester/study period)</td>
<td>(per study programme)</td>
</tr>
<tr>
<td><strong>STUDENTS’ GRADES OF INTRODUCTORY COURSES and/or EXAMINATIONS</strong></td>
<td>(e.g. in mathematics, languages)</td>
<td>(per study programme)</td>
</tr>
</tbody>
</table>
### Performance Indicators of Learning Competencies & Processes – L&T Analytics

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>STUDENT WORKLOAD</strong></td>
<td>(e.g. number of learning hours per semester week, number of courses)</td>
</tr>
<tr>
<td><strong>AVERAGE DURATION PER STUDENT INTERACTION WITH COURSE ACTIVITIES</strong></td>
<td>(e.g. solution of exercises, watching videos, listening to lecture, participation in working groups, etc.)</td>
</tr>
<tr>
<td><strong>STUDENTS’ DISPOSITIONS, VALUES AND ATTITUDES TOWARDS LEARNING</strong></td>
<td>(measured on the basis of learner data and pedagogical descriptors, e.g. learning-related emotions such as enjoyment, curiosity, frustration, anxiety; ability in deactivating negative learning emotions; learning strategies)</td>
</tr>
<tr>
<td><strong>STUDENTS’ COMPETENCIES WITH RESPECT TO LEARNING and SELF-DIRECTED LEARNING (SDL)</strong></td>
<td>(e.g. students’ knowledge and understanding of learning theories, own learning processes, problem-based learning, research-based learning, internships, online learning, mobile learning, blended learning)</td>
</tr>
</tbody>
</table>
### Performance Indicators of Teaching Competencies & Processes – L&T Analytics

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PROPORTION OF TEACHING STAFF WHO PARTICIPATED IN PEDAGOGICAL TRAINING</strong></td>
<td></td>
</tr>
<tr>
<td><strong>QUALITY OF RECRUITMENT PROCEDURES FOR LECTURERS/ASSOCIATE PROFESSORS/FULL PROFESSORS</strong></td>
<td>(e.g. procedural responsibilities; recruitment and selection process; recruitment quality criteria)</td>
</tr>
<tr>
<td><strong>TEACHING STAFF’S DIDACTICS COMPETENCIES &amp; PEDAGOGICAL KNOWLEDGE &amp; SKILLS</strong></td>
<td></td>
</tr>
<tr>
<td><strong>TEACHING STAFF’S FEEDBACK TO STUDENTS</strong></td>
<td>(e.g. on work in progress, tests, completed assignments)</td>
</tr>
</tbody>
</table>
Performance Indicators of **Learning Outcomes** and **Learning Gain** and Their Assessment referring to **Future Competencies** – **L&T Analytics**

<table>
<thead>
<tr>
<th>Performance Indicators</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>STUDENTS’ LEARNING GAIN IN HIGHER EDUCATION FOR SUSTAINABILITY DEVELOPMENT (HESD) COMPETENCIES</strong></td>
<td>(e.g. according to (a revision of) the UNESCO’s 17 Sustainability Development Goals)</td>
</tr>
<tr>
<td><strong>STUDENTS’ LEARNING GAIN IN REFLECTIVE COMPETENCIES</strong></td>
<td>(e.g. systemic thinking, forward thinking, critical thinking, self-perception competency)</td>
</tr>
<tr>
<td><strong>STUDENTS’ LEARNING GAIN IN LEARNING STRATEGIES AND SELF-LEARNING COMPETENCIES</strong></td>
<td>(e.g. knowledge of learning theories and practice; collaborative learning)</td>
</tr>
<tr>
<td><strong>STUDENTS’ EXAMINATION and ASSESSMENT RESULTS WITH RESPECT TO QUANTITATIVE REASONING</strong></td>
<td>(e.g. knowledge and skills of mathematical and statistical methodologies)</td>
</tr>
<tr>
<td><strong>STUDENTS’ EXAMINATION and ASSESSMENT RESULTS WITH RESPECT TO INTERDISCIPLINARY COMPETENCIES</strong></td>
<td>(e.g. ability to combine and synthesize knowledge and methodologies from different disciplines)</td>
</tr>
<tr>
<td><strong>STUDENTS’ LEARNING GAIN WITH RESPECT TO SOCIAL COMPETENCIES</strong></td>
<td>(e.g. team, communication and leadership competencies; empathy; ability to cooperate; ability to solve conflicts)</td>
</tr>
<tr>
<td><strong>STUDENTS’ LEARNING GAIN WITH RESPECT TO SELF-COMPETENCIES</strong></td>
<td>(e.g. self-determination; capability of decision and learning (SDL); flexibility of action; ability to reflect; sovereignty)</td>
</tr>
</tbody>
</table>
A few basic insights about innovative governance in HE(Is)

• All strategies & endeavours for quality enhancement & organisational development = governance activities can be included into networked QUALITY LITERACY & rely on PERFORMANCE INDICATORS

• Performance indicators are richer than often assumed
  – Qualitative PIs & their complex data gathering methods
  – Generate/support orientation knowledge & action knowledge (& competencies)
  – Performance assessment in support of evidence-informed quality enhancement & organisational development
  – Can be irritating – critical potential

• Shift from teaching to learning has found its way into institutional strategy formation (during the last decade or so) (e.g. Gaebel et al., 2018, 7)

• HE(I) Governance seems to be going to experience more attention as a quality factor
A few basic insights about innovative governance in HE

Required **INNOVATIONS** or Improvements

- **Quality Literacy**
  - All internal & external stakeholders to be included/activated
  - Incl. Quality Culture competencies
  - Incl. leadership competencies

- **Performance Indicators**
  - Especially in L&T & Third Mission
  - Complex Qualitative Performance Indicators & their Data Gathering Methods
  - Theoretical justification (e.g. theories of research, innovation, creativity, leadership, L&T, …)
  - Quality criteria (e.g. usefulness, appropriateness, fairness, precision)

- **Methods for gathering PI information & data**
  - Performance Data Analytics (incl. Big Data, AI: profiling & prediction; assessment & evaluation; adaptive systems & personalisation; intelligent tutoring systems) (e.g. Popenici & Kerr, 2017; Zawacki-Richter et al., 2019)
References


References


References


References