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Sustainable Quality Enhancement in Higher Education Learning and Teaching

Integrative Core Dataset and Performance Data Analytics

Acronym: SQELT

Grant co-funded by European Union (Erasmus+ Projects)
Key Action: Cooperation for Innovation and the Exchange of Good Practices
Action: Strategic Partnerships
Main objective of the project: Development of Innovation

5th Transnational Project Meeting & **1st Multiplier Event**

Danube University Krems (DUK), Krems, Austria, 1-2 July 2019

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Performance Data Governance and Management of Learning and Teaching in Higher Education: What we have learned, what we should do and what we should refrain from

Theodor Leiber
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- Performance measurement can be used 'to **EVALUATE, CONTROL, BUDGET, MOTIVATE, PROMOTE, CELEBRATE, LEARN, and IMPROVE**.
- In general, '**no single performance measure is appropriate for all eight purposes**'.
- One has to '**select measures with the characteristics necessary to help achieve each purpose**. Without at least a tentative theory about how performance measures can be employed to foster **improvement** (which **is the core purpose behind the other seven**), public managers will be unable to decide what should be measured'

(Robert D. Behn, 2003. "Why measure performance? Different purposes require different measures." *Public Administration Review* 63(5), 586-606, 586)

Performance measurement is the process of collecting, analyzing and/or reporting information regarding the performance of an individual, group, organization, system or component. Performance measurement is not a new concept, some of the earliest records of human activity relate to the counting or recording of activities. (Wikipedia, Behn 2003)

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Lessons Learned
recognize mistakes
observe what works
document them
share them

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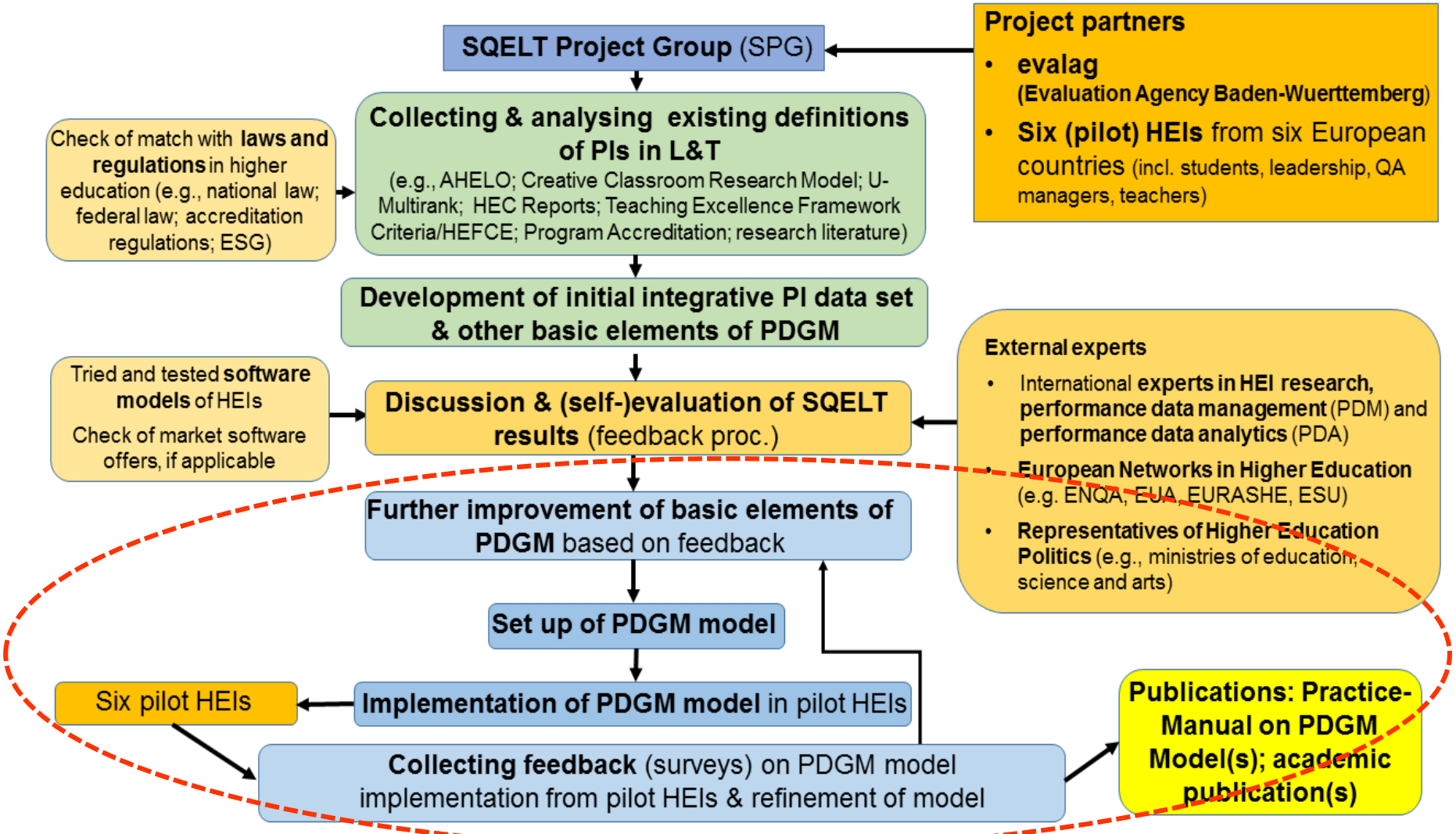
Workflow (schematic main steps) of SQELT project (updated)



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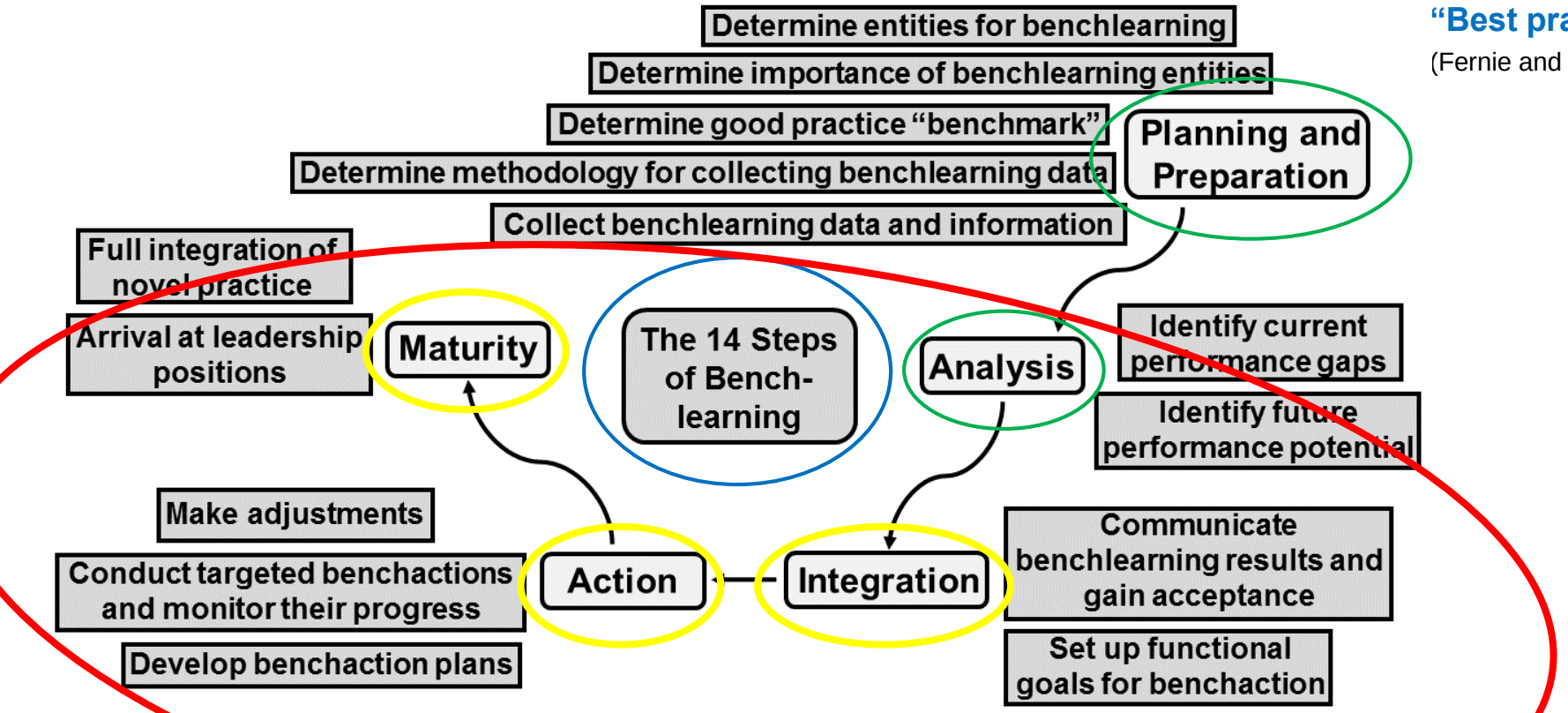
Benchlearning around PDGM



"Best practice is a myth"
(Fernie and Thorpe, 2007, p. 328)

Benchlearning is a way of monitoring and assessing the strategies and performance of an organization against comparable, good-practice competitors; it includes an ongoing performance improvement strategy and change management process.

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Basic elements of PDGM

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- **Identification of stakeholders & usage of performance data** – generic –

- Actionable **Performance Data Governance & Management Policy (PDGMP)** (& its various supporting documents) – generic **– "ready for further improvement" –**

- (**Digital**) **PDM System** is required that makes performance data/information **operational** and **coherent**. – 'quasi-generic' **– "model cases from SQELT partners in preparation/ prepared" –**

- **Suitable set of PIs** to monitor, measure & report information & data related to L&T – 'quasi-generic', comprehensive **– "ready for further improvement" –**

- **Systematic & ongoing reflection** of **methodological** & **ethical** issues of PDGM is essential to secure validity, reliability, moral values. – (theoretically) generic (in the EU) **– forthcoming SQELT meeting(s) –**

- **Vivid PDGM culture: sufficiently widespread understanding of PDGM ownership & related interpretation capabilities & evidence-based decision-making**

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Stakeholders and usage of L&T performance data

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Stakeholders – groups & individuals	Areas and tasks for using performance data of L&T
Teaching staff	Instructional processes; action research; assessment practices; learning processes; teaching effectiveness; teaching evaluation
Students	Learning processes; self-monitoring of own academic progress
Researchers	Student-centred research initiatives; pedagogy research; learning-related research
Department heads/ Programme directors	Teaching effectiveness; teaching evaluation; programme ealuation; student flow-through; student dropout rates & failure; student retention strategies
Deans	Empowering education research; enhancing reputation; improving accountability
Government & policy makers	Improving accountability; creating transparency; assessing impact of policy changes
Community & donors	Educational outreach
Executive officers	Process optimisation; improving graduation rates; improving retention rates; empowering education research; enhancing reputation; improving accountability
Survey supervision staff	Improving user experience; improving survey usability & performance; improving survey design
Administration staff (Student Affairs)	Monitoring student progress, student flow-through; managing student intervention (at-risk students); developing retention strategies

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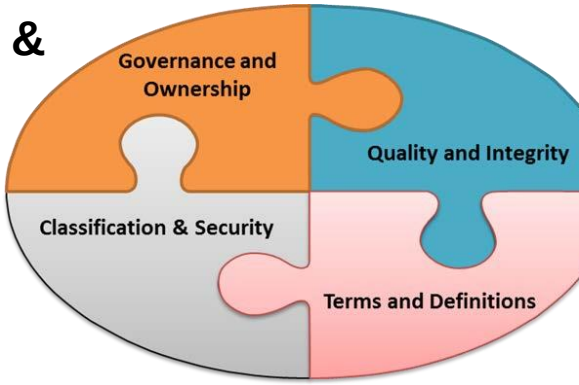
Core purposes of PDGM Policy:

- Define **roles and responsibilities** for different data creation & usage types, cases or situations, & to establish clear lines of accountability;
- Develop good quality practices for effective **data management & protection**;
- Protect the HEI's data against internal & external threats; particularly assure **protection of privacy, academic freedom, intellectual property, information security & compliance**;
- Ensure that the HEI's data handling **complies with applicable laws, regulations, exchange & standards**;
- Ensure that a **data trail is effectively documented** within the processes associated with accessing, retrieving, exchanging, reporting, managing & storing of data.



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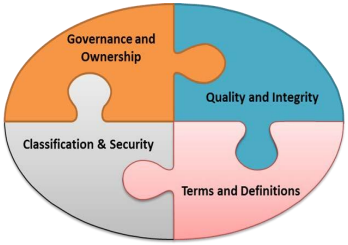
PDGM Policy

Template[1]

Performance Data Governance and Management Policy (PDGMP)

of *[insert name of higher education institution]*

With Focus on Performance Data of Learning and Teaching, including Learning Data Analytics, to be Accompanied by Supporting Documents



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Not for dissemination

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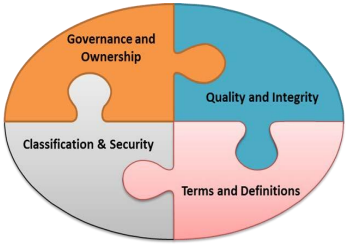
Basic elements of PDGM: PDGM Policy



Policy Statement

Version	Approved by	Approval date	Effective date	Next review
1.0	*[insert name(s) of approving person(s)]*	*[insert approval date]*	*[insert effective date]*	*[insert date of next review]*

Purpose

Performance Data Governance and Management Policies (PDGMPs) are collections of principles that describe the rules to steer and manage the integrity, security, quality, and usage of performance data[2] during their lifecycle.

PDGMPs also define the roles and responsibilities of institutional/organisational staff, contractors, and consultants with internal and external parties in relation to data access, retrieval, storage, disposal, and backup of institutional/organisational data assets.

This PDGMP is adapted to higher education institutions (HEIs), a specific type of complex multiple-hybrid social organisations, as far as necessary. Accordingly, the purpose of this PDGMP is to:

- Define the roles and responsibilities for different data creation and usage types, cases and/or situations, and to establish clear lines of accountability;
- Develop good quality practices for effective data management and protection;
- Protect the HEI's data against internal and external threats; particularly assure protection of privacy, academic freedom, intellectual property, information security and compliance;
- Ensure that the HEI's data handling complies with applicable laws, regulations, exchange and standards;
- Ensure that a data trail is effectively documented within the processes associated with accessing, retrieving, exchanging, reporting, managing and storing of data.

Scope

This PDGMP applies to, but is not limited to, all institutional performance data of learning and teaching at *[insert name of HEI]*. Management of data associated with academic research activity, Third Mission and University administration will be covered by respective policies (e.g. Research data management Policy; Third Mission Data Management Policy; Administration Data Management Policy) which will address the specific requirements at more detailed levels.

This PDGMP covers, but is not limited to, institutional performance data in any form, including print, electronic, audio visual, backup and archived data.

This PDGMP applies to all staff, contractors and consultants of *[insert name of HEI]*.

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- **Vivid PDGM culture: sufficiently widespread understanding of PDGM ownership & related interpretation capabilities & evidence-based decision-making**

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(Digital) **PDM System**

- **Operationalise stakeholders‘ usage of valid and reliable performance data**
- **Regulate collecting, processing, categorising, aggregating of performance data and information**
- **Allow (ethical) regulation of data access**
- **Digital PDM system required for actionable Learning Analytics**
- **Match different PD(M) systems & databases to avoid data silos and island solutions**

- **Will we have a case model from SQELT? …**

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As for PIs …

- We should **not reduce PIs to quantitative data only**

- We should **use PIs in HEIs**
  - 'to facilitate monitoring, assessing and evaluating their performance for the purposes of internal or external QM (for example, in audits, evaluations and accreditations)
  - to provide information to the financiers (e.g., government, taxpayers) and potential beneficiaries (e.g., students, broader public) for accountability and reporting purposes
  - to ensure accountability for public funds
  - to facilitate national and international comparisons of HEIs, e.g., by benchmarking, [benchlearning], ratings and rankings, which are based on PIs' (Leiber 2019b, 77)

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Lessons learned about PIs

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As for PIs …

- We should assume ‘that it is **epistemologically hopeless to measure performance, outcomes and success of active stakeholders** in HEIs (e.g., students, teachers, researchers) **completely and fully objectively**

  - PIs as concepts are empirically underdetermined and therefore unavoidably conceptually vague and fuzzy to a certain degree.
  - This problem is even exacerbated when the same PIs are to be **operationalised in different HE systems and different HEIs**.
  - PIs must be interpreted and made operational; both these procedures can usually be carried out in a variety of ways depending on various possible adjustments to the context.
  - Any list of PIs will be fallible in several ways.
    - There is always the possibility that elements of the set are empirically inadequate.
    - There is always a tendency that modelling is undercomplex as compared to the modelled entities and their dynamics.
    - PI model sets will usually be systematically incomplete like any list of normative statements, because not all the individual cases can be foreseen; and if they could be anticipated, in practice it would end up in a mess trying to capture them normatively. (Leiber 2019b, 78).

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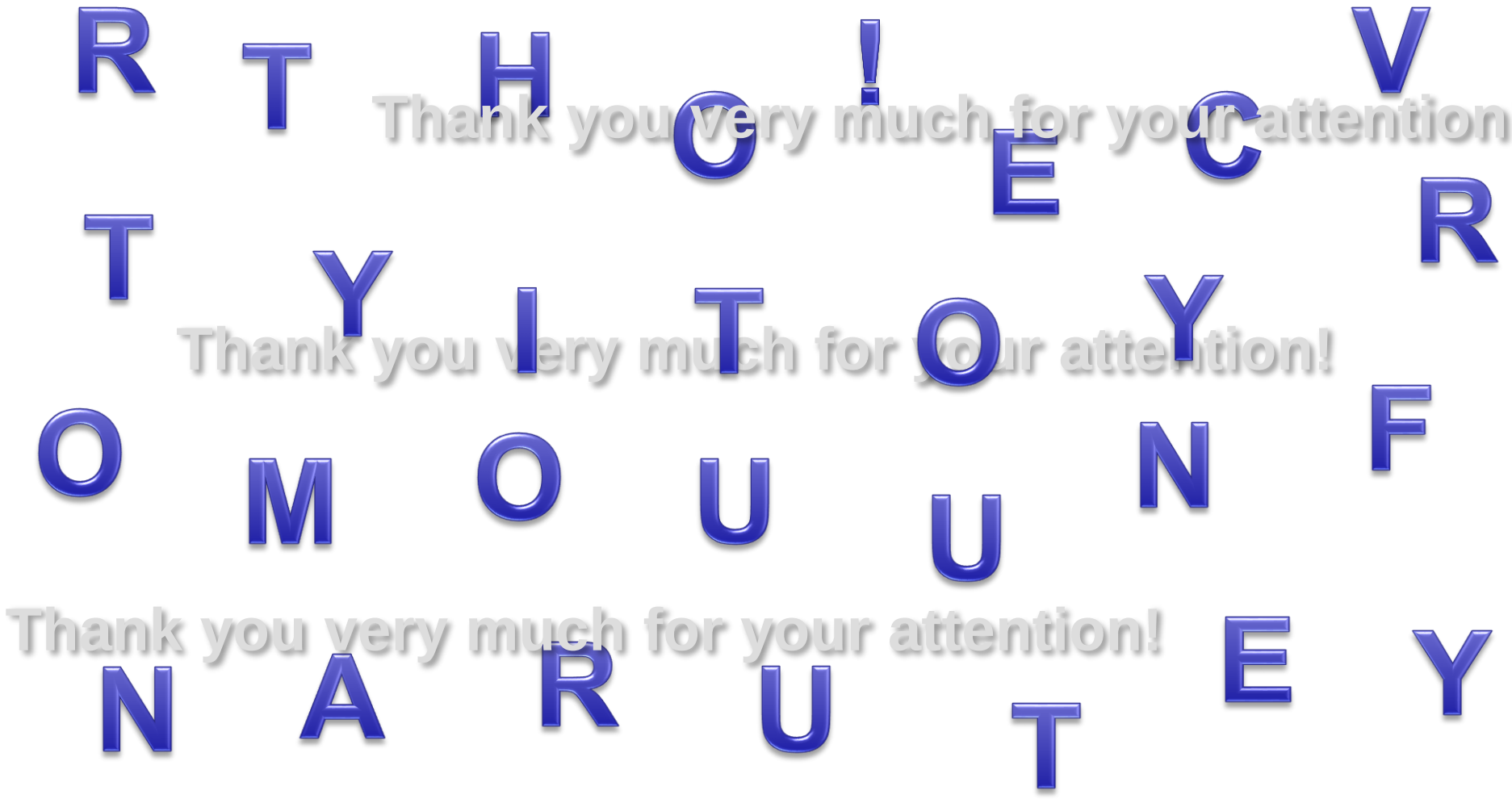
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References

- Behn, Robert D. 2003. “Why measure performance? Different purposes require different measures.” *Public Administration Review* 63(5), 586-606.
- Fernie, S. & Thorpe, A. (2007) Exploring change in construction: supply chain management. *Engineering, Construction and Architectural Management* 14(4), 319-333.
- **Leiber, T. (2019b) A general theory of learning and teaching and a related comprehensive set of performance indicators for higher education institutions. *Quality in Higher Education* 25(1), 76-97. See also: https://doi.org/10.1080/13538322.2019.1594030**