

# Success Factors of Student Experience and Engagement Surveys Insights from International Initiatives and Recommendations

**Theodor Leiber**

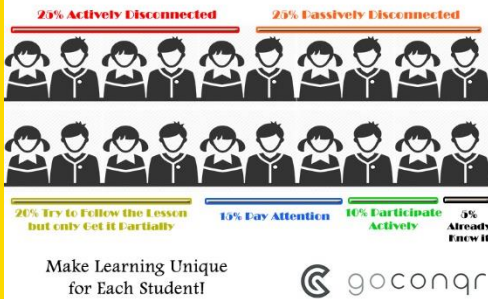
**evalag** (Evaluation Agency Baden-Wuerttemberg), Mannheim, Germany

**Frühjahrstagung des Arbeitskreises Hochschulen der DeGEval –  
Gesellschaft für Evaluation e.V.**

**DER STUDENT LIFECYCLE ALS GEGENSTAND VON STUDIERENDENBEFRAGUNGEN.  
FUNKTIONEN, CHANCEN UND PERSPEKTIVEN FÜR DAS HOCHSCHULQUALITÄTSMANAGEMENT**

Universität Duisburg-Essen, Campus Essen, Germany, 3-4 June 2019

What happens in the classroom while the teacher speaks?



- **Introductory remarks**
- **Student Experience & Engagement Surveys (SEESs) in context & overview of four prominent SEES initiatives**
- **Methodological limitations of SEESs**
- **Resulting recommendations for SEES governance & management**
  - **Policy** (Performance Data Governance & Management Policy – PDGMP)
  - (Digital) **PDM System**
  - **Qualities of successful SEE & related performance indicators**
  - **Methodological & ethical issues** (e.g data protection regulation & student analytics)

- Do we sufficiently understand **what's going on with currently 197 million students globally (262 million by 2025 according to UNESCO statistics) while they are enrolled in HE?**
- **Student Experience and Engagement (SEE) data** is a **central tenet of evidence-based QM in HE**
  - HE learning and teaching: complex, dialectical, transformative, iterative process of *student education & formation by teaching & student self-formation*
  - Insights from **monitoring** of institutional **performance at all stages of the student lifecycle** can allow HEIs to meet the evolving needs & expectations of students as well as other stakeholders' requirements by **evidence-based governance, quality management (QM) & organisational development (OD)**

# Background and motivation

- How can **student experience of education & study outcomes be ensured & enhanced** on **system-wide** levels & on **institutional** levels at the same time?
- Are **nation-wide Student Experience & Engagement Surveys (SEESs)** an **advantage?**
- **Only in few countries – obligatory/nation-wide/ standardised/ centralised – SEESs exploring** relevant **aspects** of the **student lifecycle** (ideally complemented by **alumni & employer surveys**) have a history worth mentioning, while in many parts of the (higher education) world this history is still in its infancy, including continental Europe.
- Give **pragmatic overview** & related **assessment of approaches** based on **SEES initiatives reports & research literature** & own research
- The analysis is not based on immediate self-experience with SEESs or the practical application of SEESs.

## Definition – Student Experience and Engagement

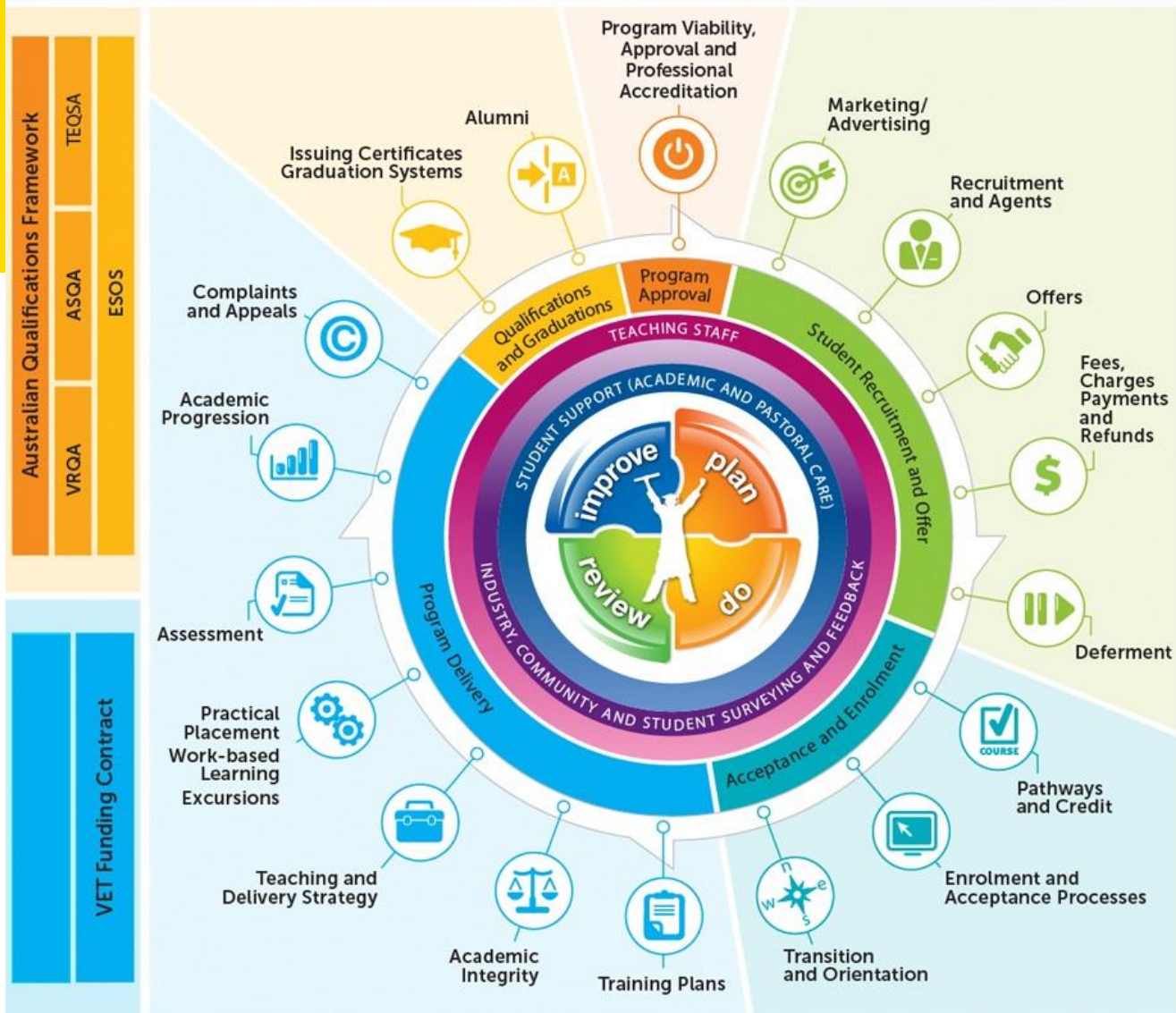
- Students' **representation and participation** (learning, communication, feedback, consultation, partnership, leadership, ...) **in L&T processes & development** (L&T environment; Learning; Teaching; Learning outcomes & assessments; ...), **quality assurance** and **institutional governance** as well as **further life experiences** entangled with university study (also cf. Ashwin & McVitty, 2015)
- Yet, SEE definitions are said to be contested: “Judging from the systematic review of the literature [2000-2014], there remains **no clear definition on the notion of student experience**” (Tan et al., 2016, 220).
- Actually, **used definitions are usually implicit** (in semantics of survey items & criteria etc.)

# Background and motivation

**Student life-cycle and the external regulatory bodies and University operational areas** that govern and support student activities

Example of Federation University Australia, Victoria, Australia

<https://federation.edu.au/staff/governance/quality/student-life-cycle>





## Goals and Methodology

- **➔** Worthwhile to **analyse** some **prominent** initiatives of “comprehensive” **Student Experience and Engagement Surveys (SEESs)** in the HE sector:

### Selected sample SEESs

**U.S. (& Canada)**  
National Survey of  
Student Engagement/  
**NSSE 2018**

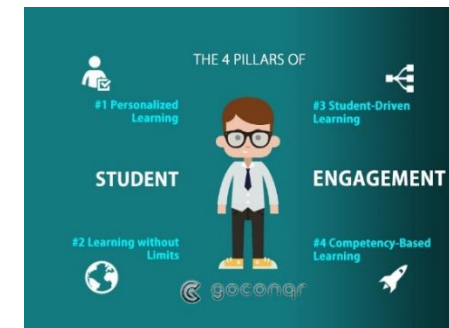
**Australian** Student  
Experience Survey/  
**SES 2017**

**UK** Student Academic  
Experience Survey/  
**SAES 2018**

**Irish** Survey of  
Student Engagement/  
**ISSE 2018**

In addition

- Analyse contemporary research literature on
  - **Validity & reliability of SEESs data for QA/QM/EBOCD**
  - **SEESs as part of student lifecycle (data) analytics**
- Methodology: Qualitative and comparative text and concept analysis



## SEESs in context and overview of four prominent SEES initiatives

**Most common student surveys** originating from the U.S., then “imported” to Australia, UK and other countries

**Table 1** Most common student surveys

Types of surveys	Examples of most influential or international surveys
Student profiles <small>Biggs' Auschnitiden</small>	EUROSTUDENT <sup>a</sup>
Assessment of student learning outcomes	OECD's Assessment of Higher Education Learning Outcomes (AHELO) <sup>b</sup> ; United States Collegiate Learning Assessment (CLA) (Shavelson 2010), The Educational Testing Services' Proficiency Profile (ETS 2014; Coates and Lennon 2014)
Student course evaluations	Institution/study-program-based
Student approaches to learning and studying	ASSIST (Approaches and Study Skills Inventory for Students) <sup>c</sup> ; The Study Process Questionnaire (Biggs 1987a); The Learning Process Questionnaire (Biggs 1987c)
Student experience (satisfaction) and engagement surveys	The North American National Survey of Student Engagement (NSSE) <sup>d</sup> , which has been adapted into a number NSSE-based national surveys <sup>e</sup> ; Australasian Survey of Student Engagement (AUSSE) <sup>f</sup> ; Student Experience in the Research University (SERU) <sup>g</sup> ; National Student Survey in the UK (NSS) <sup>h</sup> ; Dutch National Student Survey (NSE) <sup>i</sup> ; Irish Survey of Student Engagement (ISSE) <sup>j</sup>
Student mobility surveys	International Student Barometer Survey <sup>k</sup>
Graduate employment surveys	Accenture College Graduate Employment Survey <sup>l</sup>

<sup>a</sup><http://www.eurostudent.eu/>

<sup>b</sup><http://www.oecd.org/edu/skills-beyond-school/testingstudentanduniversityperformancegloballyoecdshelo.htm>

<sup>c</sup><http://www.etl.tla.ed.ac.uk/questionnaires/ASSIST.pdf>

<sup>d</sup><http://nsse.iub.edu/>

<sup>e</sup>NSSE-based surveys were administered in Australia, China, South Africa, the UK, Ireland and several other countries (Coates and McCormick 2014)

<sup>f</sup><http://www.acer.edu.au/ausse>

<sup>g</sup><http://www.cshe.berkeley.edu/SERU>

<sup>h</sup><http://www.thestudentsurvey.com/>

<sup>i</sup><http://www.uu.nl/EN/informationfor/students/facilities/NSE/Pages/default.aspx>

<sup>j</sup><http://studentsurvey.ie/wordpress/>

<sup>k</sup><http://www.i-graduate.org/>

<sup>l</sup><http://www.accenture.com/us-en/Pages/insight-2014-accenture-college-graduate-employment-survey.aspx>



# SEESs in context and overview of four prominent SEES initiatives

Stakeholder groups	Areas and tasks for using SEESs data
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 evaluation; 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

# SEESs in context and overview of four prominent SEES initiatives

SEESs	U.S. National Survey of Student Engagement/NSSE 2018	Australian Student Experience Survey/SES 2017	UK Student Academic Experience Survey/SAES 2018	Irish Survey of Student Engagement/ISSE 2018
Foundation year	Ca. 2000	2015	2012	2013
Goal	To assess student engagement in & exposure to proven educational practices that correspond to desirable learning outcomes*	To collect feedback on HE student experience on a <b>national level</b> ; focus on measurable aspects of student experience that are linked with <b>learning &amp; development outcomes</b> , & potentially able to be influenced by HEIs; provide <b>source data for QILT website</b> ( <a href="https://www.qilt.edu.au/">https://www.qilt.edu.au/</a> )	To measure (full-time) undergraduate students <b>satisfaction with value for money; how fees are spent; experience vs. expectation; learning gain; teaching intensity; teaching quality; assessment quality; ethnicity; policy issues</b>	Focus on students' engagement with their learning & their learning environments (e.g., no direct exploration of students' involvement in quality assurance or in institutional decision-making)
Participation for HEIs	<b>Voluntary*</b>	' <b>Pseudo-voluntary</b> ' ("all public universities & many others took part", based on obligatory nation-wide HE Information Management System data); voluntary: 'additional population' samples on a fee-for-service basis	<b>Obligatory</b> for publicly funded HEIs in the UK*	<b>Voluntary</b> but based & relying on an established network of a majority of Irish HEIs ('collaborative partnership'). Co-sponsored by the Higher Education Authority (HEA), institutions' representative bodies (Irish Universities Association, IUA; Technological Higher Education Association, THEA) & the Union of Students in Ireland (USI')
Theoretical foundations	For the <b>concept of student engagement</b> see (Ashwin & McVitty, 2015; Kuh, 2009; Pascarella & Terenzini, 2005). For approaches to <b>L&amp;T theories to justify SEES items &amp; related performance indicators</b> (PIs) see (Åkerlind, 2004; Ambrose at al., 2010; Arnold, 2015; Barr & Tagg, 1995; Illeris, 2018; Keshavarz, 2011; Leiber, 2016; Leiber, 2019b; Lodge & Bonsanquet, 2014; Ramsden, 1991).			

\* Adopted and further developed from (Klemenčič & Chirikov, 2015, p. 368-369)

# SEESs in context and overview of four prominent SEES initiatives

SEESs	U.S. National Survey of Student Engagement/ NSSE 2018	Australian Student Experience Survey/ SES 2017	UK Student Academic Experience Survey/ SAES 2018	Irish Survey of Student Engagement/ ISSE 2018
Survey content: topics	Participation in educationally purposeful activities, institutional requirements of coursework, perceptions of the college environment, educational & personal growth, etc.	The SES measures five aspects of the student experience: <b>Skills Development, Learner Engagement, Teaching Quality, Student Support, &amp; Learning Resources</b>	Satisfaction with teaching quality, assessment and feedback, academic support, organisation and management, learning resources, personal development, overall experience, etc.*	Learning (types), learning strategies, <b>student-faculty interaction</b> , teaching practices, supportive environment etc.
Survey content: validity and reliability studies	(McCormick & McClenney, 2012; Pike, 2013)	(Whiteley, 2016)	(Callender et al., 2014; Richardson et al., 2007)	<a href="http://www.studentsurvey.ie">www.studentsurvey.ie</a>
Data collection: sample	Census-based/random sample survey of first-year & senior students*	Census-based survey of 'commencing' & 'later years' students (undergraduates & postgraduates); <b>sophisticated definition &amp; selection &amp; HEI verification of survey population &amp; sample</b>	Census-based survey of last year students*	Census-based survey of 'commencing' & 'later years' students (first year undergraduates, final year undergraduates, postgraduates)
Data collection: method and frequency	Online & paper-based; once a year*	Online; once a year	Online & paper-based; once a year*	Online; once a year
Data collection: response rates (completed)	<b>25-30 %*</b>	2017: <b>36 %</b> 2018: <b>568,976 invitations</b> (undergraduates & postgraduates; universities & non-university HEIs)	<b>20 %</b> 2018: over 70,000 invitations; 14,046 responses	<b>28 %</b> 2018: 137,025 population; 38,371 student responses

\* Adopted and further developed from (Klemenčič & Chirikov, 2015, p. 368-369)

# SEESs in context and overview of four prominent SEES initiatives

SEESs	U.S. National Survey of Student Engagement/ NSSE 2018	Australian Student Experience Survey/ SES 2017	UK Student Academic Experience Survey/ SAES 2018	Irish Survey of Student Engagement/ ISSE 2018
Data collection: survey period		Aug – Oct 2017	5 Feb – 10 March 2018	Feb – March (3 weeks duration, different periods for different institutions)
Data collection: average survey completion time			16 minutes	(67 question items)
Data collection: incentives			<b>£1 AMAZON gift voucher</b>	
Data analysis	Centralised approach*  Engagement indicators (benchmarks) and item by item comparisons*	Centralised approach  Comparison of groups of students, study areas, institutions, international (U.S. & UK) (structural similarity to EU Multirank) ( <a href="https://www.qilt.edu.au/">https://www.qilt.edu.au/</a> )	Centralised approach*  Item by item comparisons*	Centralised approach
Data use	<b>Mostly internal:</b> for benchlearning, voluntary accreditation, decision-making support*	<b>Mostly external:</b> to inform prospective – foreign – students' choice of the academic program, to create league tables, for marketing purposes* (structural similarity to EU Multirank)  Internal use intended, has yet to be proved	<b>Mostly external:</b> to inform prospective students' choice of the academic program, to create league tables, for marketing purposes*	<b>Mostly internal:</b> for quality enhancement

\* Adopted and further developed from (Klemenčič & Chirikov, 2015, p. 368-369)

## Methodological limitations of SEE Surveys (and other information collection methodologies)

Three fundamental common challenges cut across **any** performance data governance and management (PDGM) model which may include SEESs, learning analytics, academics analytics etc.

- **Ownership** of performance data and information
  - the inherently distributed ownership must be transparently and reliably **regulated**
- **Interpretation capabilities** of performance data and information
  - the inherently distributed interpretation capabilities (values, missions, visions and further interpretation criteria) must be transparently and reliably **regulated**
- **Evidence-based decision-making capabilities** based on performance data and information
  - the inherently distributed decision-making capabilities (e.g. timeliness, competences) must be transparently and reliably **regulated**





## Methodological limitations of SEE Surveys (and other information collection methodologies)

### Hard or impossible to fix

- **Explanatory power** and generalisability of survey results is **low** (e.g., it is hard to explain statistically more than 15% of variation in data; survey focus on statistical groups)
- Students' abilities to **comprehend survey questions & make informed judgments** are often **overestimated** (e.g. fluent groups; different kinds of learning orientation & program engagement; engagement in QM often rather low) (also cf. Bennett & Kane, 2014)
- **Accuracy** of information on engagement and learning gains as **self-reported by students** is **contested** (strong tendency to **social desirability bias**)
- **Survey fatigue** implying low response rates which accentuate possible biases in survey responses (e.g. underrepresentation of disengaged, non-traditional and minority students) [‘students are perhaps among the most surveyed populations world-wide’ (Klemenčič & Chirikov, 2015, p. 362).]
- **‘Stakeholders seem increasingly unresponsive’** to results from SEESs (Borden & Coates, 2017, 91) (e.g., over the years **strategic rationalising of responses** developed; **habituation to the results**)



## Methodological limitations of SEE Surveys (and other information collection methodologies)

### Not impossible to fix

- More **generic surveys** (like centralised, national ones) might **fail to discern ‘the contextual dimensions** and variables [the “local circumstances”] which could add most value to a formative use of such data’ (Klemenčič & Chirikov, 2015, p. 371)
- **“Local” surveys** are more **expensive** and more **prone to methodological errors**
- **Poor quality** (validity; reliability) **of data; questionnaire items** themselves may need **sharpening** (UK NSS; cf. Bennett & Kane, 2014; Hora et al. 2017, 41)
- The **range of questionnaire questions** may need **widening** (UK NSS; cf. Bennett & Kane, 2014)
- Choice of ‘independent variables’ (factors that are expected to influence student learning & success) is prone to **observational & theoretical biases** (e.g., **interpretive frameworks of SEEs are biased** according to a limited range of student experience, especially given the growing diversity of student learners and learning environments (Museus, 2014); **we prefer to measure what’s easy enough to measure ...**)

Also cf. (Campbell & Cabrera, 2011; Gordon et al., 2008; Porter, 2011; Porter, 2013, Porter et al., 2011)



# Methodological limitations of SEE Surveys (and other information collection methodologies)

## Not impossible to fix

- Staff's **lack of time** due to workload
- Staff's **lack of expertise with educational data (processing, interpretation, evaluation)**
- **Poor timing of survey data delivery**
- **Lack of tools & technology** (for survey data monitoring, integration, presentation, ...)
- **Lack of human resources** (for survey data monitoring, processing, interpretation, ...)
- **Lack of general culture** of using SEESs data and data-driven decision-making (e.g. “student-centredness” & SEES data not accepted as central tenets of EBOCD in HE)

Also cf. (Hora et al., 2017, 411ff.)



## Methodological limitations of SEE Surveys (and other information collection methodologies)

### Not impossible to fix

- **Multitude of surveys** is necessary to exhaust **complete student lifecycle**
- In reality, the **majority of HE(Is) worldwide utilises** a bulk and mix of **different student experience & student engagement feedback on course and/or institutional and/or national levels;** accordingly, 'faculty utilise a variety of information in their daily work' (Hora et al., 2017, 417)

## Recommendations for SEES governance and management

First & foremost: **Improve on above-listed “not-impossible-to-fix limitations”**

Three major, partially complementary “ways” – **no single panacea**

- Continually **improve survey methodologies** (e.g. pilot-testing, implement measures to raise response rates [e.g. email reminder strategies; courtesy telephone calls; telephone reminders]; use mixed-methods approaches; apply **“local”, de-centralised, “discipline-specific” SEESs** capturing the different student intakes profiles [cf. Bennett & Kane, 2014; Harvey, 2011]; apply **longitudinal survey designs; broaden (“holistify”) samples and case studies** [e.g. international comparisons; transcultural dimensions; transdisciplinary dimensions; other stakeholders beyond students; ...] (Baird & Gordon 2009; Kim 2007))
- **Organisational development** (e.g. define realistic core tasks and responsibilities; provide sufficient human resources & capabilities; provide adequate technology; etc.)
- **USE STUDENT DATA ANALYTICS** (thus **BYPASSING SURVEYS, AS FAR AS POSSIBLE**)



# Recommendations

## for SEES governance and management

## Privacy, EU General Data Protection Regulation (GDPR) and data analytics in higher education (learning a., academic a., student a., ...)

- **Consent** by stakeholders/students **must be obtained**
  - Where **special category data** is used (e.g. ethnic origin; time spent for studying; ...)
  - When **interventions** are at stake **with individual** stakeholders/students based on their analytics
- Requirements of GDPR for requesting consent include
  - **Keeping consent requests separate** from other terms and conditions
  - **Giving clear and specific information** to students/stakeholders about what they are consenting to
  - **Informing them of any third-party data controllers** who will rely on their consent
  - **Making clear the consequences** of either providing or withholding their consent
  - **Requiring clear, affirmative action** by the student/stakeholder; the use of pre-ticked boxes is not acceptable

# Recommendations

## for SEES governance and management

- Notorious **success factors** of QM and OD are non-trivially (also) relevant for successful **development and application of SEESs**, among them
  - To foster and disseminate personal characteristics for **ethical behavior**, including **self-competences** and **social competences**
  - To oblige **leadership**
  - To assure data and reporting quality including proper **design**, tested **validity**, **reliability** and **communicated purposes** of surveys
  - To **involve relevant stakeholders** in all SEES development and application phases
  - To **close the quality** (Deming) **cycles**
  - To **restrain the various biases** of applied surveys
  - To **invest sufficient resources** (time, money, competences, human workforce)

Also cf. (Leiber, 2019a, 332ff.)

## References

- Åkerlind, G.S. (2004) 'A new dimension to understanding university teaching', *Teaching in Higher Education*, 9(3), pp. 363–75.
- Alderman, L., Towers, S. & Bannah, S. (2012) Student feedback systems in higher education: a focused literature review and environmental scan. *Quality in Higher Education*, 18(3), 261-280.
- Ambrose, S.A., Bridges, M.W., DiPietro, M., Lovett, M.C. & Norman, M.K. (2010) *How Learning Works. Seven research-based principles for smart teaching* (San Francisco, CA, Jossey-Bass).
- Arnold, R. (2015) *How to Teach Without Instructing. 29 rules for clever teaching. The LENA model* [in German] (Heidelberg, Carl Auer).
- Ashwin, P. & McVitty, D. (2015) The meanings of student engagement: implications for policies and practices. In: A. Curaj, L. Matei, R. Pricopie, J. Salmi & P. Scott (Eds.) *The European Higher Education Area. Between Critical Reflections and Future Policies*. Cham: Springer, pp. 343-360.
- Baird, J. & Gordon, G. (2009) Beyond the rhetoric: a framework for evaluating improvements to the student experience. *Tertiary Education and Management* 15(3), 193-207.
- Barr, R.B. & Tagg, J. (1995) 'From teaching to learning. A new paradigm for undergraduate education', *Change: The Magazine of Higher Learning* 27(6), pp. 12–26.
- Bennett, R. & Kane, S. (2014) Students' interpretations of the meanings of questionnaire items in the National Student Survey. *Quality in Higher Education* 20(2), 129-164.
- Berk, R.A. (2005) Survey of 12 strategies to measure teaching effectiveness. *International Journal of Teaching and Learning in Higher Education* 27(1), 48-62.
- Borden, M.H. & Coates, H. (2017) Learning Analytics as a counterpart to surveys of student experience. *New Directions for Higher Education* 179, 89-102.
- Callender, C., Ramsden, P. & Griggs, J. (2014) *Review of the National Student Survey*. London: HEFCE.
- Campbell, C.M. & Cabrera, A.F. (2011) How sound is NSSE? Investigating the psychometric properties of NSSE at a public, research-intensive institution. *The Review of Higher Education* 35(1), 77-103.
- Center for Postsecondary Research (CPR). (2018) *Engagement Insights. Survey Findings on the Quality of Undergraduate Education*. National Survey of Student Engagement (NSSE), Annual Results 2018. Bloomington: CPR. Available at: [http://passthrough.fwnotify.net/download/435626/http://nsse.indiana.edu/NSSE\\_2018\\_Results/pdf/NSSE\\_2018\\_Annual\\_Results.pdf](http://passthrough.fwnotify.net/download/435626/http://nsse.indiana.edu/NSSE_2018_Results/pdf/NSSE_2018_Annual_Results.pdf) (accessed 5 April 2019).
- Challice, G., Compton, S. & Vickers, N. (2018) *2017 Student Experience Survey. Methodological Report*. Melbourne: Social Research Centre. Available at: [https://www.qilt.edu.au/docs/default-source/gos-reports/2017/2017-ses-methodology-report.pdf?sfvrsn=3048e33c\\_2](https://www.qilt.edu.au/docs/default-source/gos-reports/2017/2017-ses-methodology-report.pdf?sfvrsn=3048e33c_2) (accessed 5 April 2019).

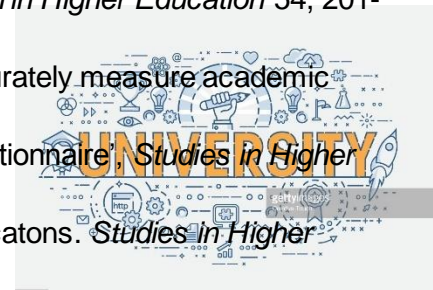
## References

- Fernie, S. & Thorpe, A. (2007) Exploring change in construction: supply chain management. *Engineering, Construction and Architectural Management* 14(4), 319-333.
- Gerring, J. (2004) What is a case study and what is it good for? *The American Political Science Review* 98(2), 341-354.
- Gordon, J., Ludlum, J. & Hoey, J.J. (2008) Validating the NSSE against student outcomes: Are they related? *Research in Higher Education* 49, 19-39.
- Harvey, L. (2003) Student feedback. *Quality in Higher Education* 9(1), 3-20.
- Harvey, L. (2011) Overview: The nexus of feedback and improvement. Student feedback. In: C.S. Nair & P. Mertova (Eds.) *Student Feedback: The Cornerstone to an Effective Quality Assurance System in Higher Education*. Cambridge: Woodhead.
- Higher Education Authority (HEA). (2018) *The Irish Survey of Student Engagement (ISSE). Results from 2018*. Dublin: Higher Education Authority/ Irish Universities Association/ Technological Higher Education Association/ Union of Students in Ireland. Available at: <http://hea.ie/assets/uploads/2018/11/ISSE-Report-2018-TEXT-Tag-A.pdf> (accessed 5 April 2019).
- Hora, M.T., Bouwma-Gearhart, J. & Park, H.J. (2017) Data driven decision-making in the era of accountability: Fostering faculty data cultures for learning. *The Review of Higher Education* 40(3), 391-426.
- Illeris, K. (2018) *Contemporary Theories of Learning*. London: Routledge.
- Johnson, J.A. (2017) Ethics and justice in Learning Analytics. *New Directions for Higher Education* 179, 77-87.
- Keshavarz, M. (2011) Measuring course learning outcomes. *Journal of Learning Design* 4(4), pp. 1–9.
- Klemenčič, M. & Chirikov, I. (2015) How do we know how students experience higher education? On the use of student surveys. In: A. Curaj, L. Matej, R. Pricopie, J. Salmi & P. Scott (Eds.) *The European Higher Education Area. Between Critical Reflections and Future Policies*. Cham: Springer, pp. 361-380.
- Kuh, G. D. (2009) The national survey of student engagement: Conceptual and empirical foundations. *New Directions for Institutional Research* 141, 5-20.
- Leiber, T. (2016) Personality development as elemental educational goal. Methodological options of implementation and evaluation in higher education [in German], *die hochschullehre. Interdisziplinäre Zeitschrift für Studium und Lehre*, 2, pp. 1–21. Available at: [http://www.hochschullehre.org/wp-content/files/diehochschullehre\\_2016\\_leiber.pdf](http://www.hochschullehre.org/wp-content/files/diehochschullehre_2016_leiber.pdf) (accessed 19 February 2019).



## References

- Leiber, T. (2019a) Organizational change and development through quality management in higher education institutions: theory, practice, and recommendations for change agents. In: Robert G. Hamlin, Andrea D. Ellinger, Jenni Jones (Eds.) *Evidence-Based Initiatives for Organizational Change and Development*. Hershey (PA): IGI Global, pp. 316-341. See also: <https://www.igi-global.com/book/evidence-based-initiatives-organizational-change/197443>
- 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>
- Lodge, J.M. & Bonsanquet, A. (2014) Evaluating quality learning in higher education: re-examining the evidence, *Quality in Higher Education* 20(1), pp. 3–23.
- Museus, S.D. (2014) The Culturally Engaging Campus Environments (CECE) model: A new theory of success among racially diverse college student populations. In M.B. Paulsen (Ed.) *Higher Education: Handbook of Theory and Research*. New York (NY): Springer, pp. 189-227.
- Neves, J. & Hillman, N. (2018) *2018 Student Academic Experience Survey*. Oxford: AdvanceHE/Higher Education Policy Institute (hepi). Available at: <https://www.hepi.ac.uk/wp-content/uploads/2018/06/STRICTLY-EMBARGOED-UNTIL-THURSDAY-7-JUNE-2018-Student-Academic-Experience-Survey-report-2018.pdf> (accessed 15 April 2019).
- Organisation for Economic Cooperation and Development (OECD). (2013) *Assessment of Higher Education Learning Outcomes. Feasibility Study Report. Vol. 2: Data Analysis and National Experiences*. Paris: OECD.
- Pascarella, E.T. & Terenzini, P.T. (2005) *How Colleges Affect Students. Vol.2: A Third Decade of Research*. San Francisco (CA): Jossey-Bass.
- Pike, G.R. (2013) NSSE benchmarks and institutional outcomes: A note on the importance of considering the intended uses of an instrument in validity studies. *Research in Higher Education* 54, 149-170.
- Porter, S.R. (2011) Do college student surveys have any validity? *Review of Higher Education* 35(1), 45-76.
- Porter, S.R. (2013) Self-reported learning gains: A theory and test of college student survey response. *Research in Higher Education* 54, 201-226.
- Porter, S.R., Rumann, C. & Pontius, J. (2011) The validity of student engagement survey questions: Can we accurately measure academic challenge? *New Directions for Institutional Research* 150, 87-98.
- Ramsden, P. (1991) 'A performance indicator of teaching quality in higher education: the course experience questionnaire'. *Studies in Higher Education* 16(2), pp. 129–50.
- Richardson, J.T.E., Slater, J.B. & Wilson, J. (2007) The national student survey: Development, findings and implications. *Studies in Higher Education* 32(5), 557-580.





## References

- Saeys, T. & Ištván, M. (2016) Integrated student lifecycle management. Higher education: gaining the edge through outstanding student experiences. IT White paper. Diegem: Itelligence Business Solutions. Available at: <https://itelligencegroup.com/wp-content/usermedia/4806 ITEL WhitePaper Education WEB fin.pdf> (accessed 5 April 2019).
- Tan, A.H.T., Muskat, B. & Zehrer, A. (2016) A systematic review of quality of student experience in higher education. *International Journal of Quality and Service Sciences* 8(2), 209-228.
- Webber, M., Lynch, S. & Oluku, J. (2013) Enhancing student engagement in student experience surveys: a mixed method study. *Educational Research* 55(1), 71-86.
- Whiteley, S. (2016) Creating a coherent performance indicator framework for the higher education student lifecycle in Australia. In R.M.O. Pritchard, A. Pausits, J. Williams (eds.) *Positioning Higher Education Institutions. From Here to There*. Dordrecht: Sense Publishers, pp. 99-124.
- Williams, J. (2014) Student feedback on the experience of higher education. A significant component of institutional research data. In: M.E. Menon et al. (Eds.) *Using Data to Improve Higher Education*. Amsterdam: Sense Publishers, pp. 67-80.
- Yorke, M. (2009) 'Student experience' surveys: some methodological considerations and an empirical investigation. *Assessment & Evaluation in Higher Education* 34(6), 721-739.

