

## ICED 2020 proceedings:

# Beyond the student-centered higher education classroom: The student-centered ecosystems framework

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### **Abstract**

In student-centered classrooms less time is devoted to plain lecturing (“telling”) and more time to meaningful and challenging tasks and activities that increase the level of students’ cognitive engagement with disciplinary content as well as active student participation (Hoidn, 2017, 2019). Hoidn and Klemenčič (2020a) argue, however, that student-centered learning and teaching processes need to be thoughtfully embedded in broader institutional ecosystems – so-called student-centered ecosystems which, in turn, are also connected to and influenced by the wider political, economic, social and cultural contexts in which HEIs operate. This paper introduces student-centered ecosystems consisting of five main components which serve as indicators of the presence of student centered learning and teaching (SCLT) in a given educational institution or study program: (1) Curriculum, pedagogy and assessment; (2) Teaching and learning support; (3) Quality of learning and teaching; (4) Governance and administration; and (5) Policies and finance (Klemenčič & Hoidn, 2020).

### **1 Introduction**

“Student centeredness” is attributed to a variety of instructional methods and academic programs and even universities referring to pedagogical concepts, approaches and techniques wherein students and their learning are placed at the heart of the educational process with the aim to foster deeper learning processes and outcomes for students to become self-directed, lifelong learners (Hoidn, 2017). Deeper learning occurs when the learner strives to make sense of the “to-be-learned material” by selecting relevant information, organizing it into a coherent structure and integrating it with prior knowledge (Mayer, 2010). The scholarship on teaching and learning (SoTL) in higher education has moved beyond focusing on specific teaching and learning practices to also considering the design of the entire classroom environment (Sawyer, 2014; Jonassen & Land, 2012). Student-centered classroom environments constitute a sociocultural classroom setting containing learners, instructors, curriculum materials, technology, the physical environment, practices and norms, and other human and material elements that may influence student learning (Gresalfi et al., 2009). Empirical research indicates that SCLT has the potential to establish deeper or more meaningful learning (e.g., Alfieri et al., 2011; Baeten et al., 2016; see also Hoidn, 2017 for an overview). Thereby, the instructor’s role remains crucial in designing and enacting student-centered learning environments (SCLEs) in higher education (e.g., Blumberg, 2019).

So far, the implementation of SCLT in higher education (e.g., as part of the Bologna Process) has been hampered by the ambiguities in the definition of SCLT, its key elements and the indicators which demonstrate the presence of SCLT in a higher education institution (HEI) or a higher education system (HES). Therefore, Hoidn and Klemenčič (2020a) propose that student-centered learning and teaching (SCLT) processes need to be thoughtfully embedded

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in so-called student-centered ecosystems (SCEs). SCEs can be defined as culturally sensitive, flexible and interactive systems of SCLT in higher education, guided by (inter)national and institutional policies and strategies and materialized through higher education processes, structures and cultures at institutional and system levels (Klemenčič, 2019). SCEs are the result of purposeful policies developed and implemented in collaboration between administrators, instructors and students and with input from education researchers, employers and other stakeholders in learning and teaching. No one stakeholder alone can transform HEIs from “Instruction Paradigm” to “Learning Paradigm” (Barr & Tagg, 1995).

Without clarity about which components constitute SCLT and a specific set of related indicators to assess and further improve institutional practice, however, it is difficult to evaluate the presence of SCLT in an HEI or an HES (Klemenčič, 2019).

## **2 Student-centered ecosystems**

Hoidn and Klemenčič (2020a) submit that SCEs consist of five main components, which are briefly introduced below. Each of these components comprises several elements which can serve as indicators of the presence of SCLT in a given institution or study program (see Klemenčič & Hoidn, 2020).

### **2.1 Curriculum, pedagogy and assessment**

SCLT builds on what students bring to the table and focusses on active student sense making and knowledge construction. Students are positioned as accountable authors in knowledge construction processes, as active and vocal participants in social interactions, and as responsible co-designers of the educational agenda (Hoidn, 2017, 2019). Instructors are concerned with what the students do and whether student activities lead to appropriate learning (Biggs, 2012). Against this backdrop, indicators of curriculum, pedagogy and assessment are:

- Student-centered conceptions of teaching, that is, guiding students in their learning instead of mainly imparting knowledge
- Students’ meaningful engagement with disciplinary content for them to make sense of and acquire the habits of mind of the discipline they are studying
- Authentic and intellectually challenging tasks that afford students with opportunities for conceptual agency and productive talk
- Thoughtful selection of various instructional methods, depending on whether new knowledge is to be transmitted to the students, developed in dialogue with the students or co-constructed independently by the students
- (Formative) Assessment practices that emphasize sense making and allow students to demonstrate their different (mis)understandings and learn from mistakes
- A safe and supportive climate of thinking, dialogue and cooperation with students sharing tentative thoughts and reasons for their answers
- Students as co-designers are given a say regarding program/course policies, assignments, learning outcomes, teaching/ learning/assessment methods, deadlines and so forth

### **2.2 Learning and teaching support**

- Learning support focuses on helping students develop or strengthen knowledge and learning skills needed to succeed in the study program. A coherent institutional offer of student services has to cater to an increasingly diversified student body and may include counseling and tutoring provisions, curricular orientations, writing centers, libraries, and career services.

- Teaching support, on the other hand, aims at teaching staff professional development, instructional support and advancement of basic and applied research on teaching and learning by offering pedagogical training, coaching and mentoring. Continuous professional development, however, requires adequate working conditions and teaching workloads, and an institutional culture that values innovation of learning and teaching, and experimentation.
- Learning technology infrastructure such as online courses (e.g., MOOCs), blended learning formats, the ubiquitous use of mobile devices, videoconferencing, classroom response systems, learning platforms, social media (e.g., blogs, GoogleDocs), gaming and artificial intelligence tutors can support active learning pedagogies in that they allow students to find information using a variety of sources, offer flexible delivery modes that provide students with choice, support personalized learning, and create an interactive classroom environment.
- Active learning spaces (e.g., movable furniture, writing surfaces and integrated information technologies, acoustics, lighting, air quality, temperature) are designed to encourage cognitively active learning. These flexible spaces enable seamless transition between different social forms of learning and greater circulation around the room, thus facilitating better interaction and collaboration between teacher and students.

### **2.3 Quality of learning and teaching**

Internal and external quality assurance allows monitoring and management of quality at the institutional level by collecting and analyzing institutional data. Learning and teaching analytics (i.e. processes of collecting, evaluating, analyzing and reporting qualitative and/or quantitative organizational data) can inform and improve institutional and classroom practices with regard to learning and teaching, decision-making and the allocation of resources. Evaluating study programs, student services and faculty, as well as monitoring graduates' career paths, are measures for getting feedback on the quality of students' education from different stakeholders (including external quality assurance bodies and accreditation agencies), and improve curricula accordingly by increasing instructional quality and fostering truly student-centered HEIs. Here HEIs and quality assurance agencies should take into account the growing importance of empirical research about the quality and effectiveness of SCLT for high-quality higher education, i.e. the SoTL as well as lighthouse projects on innovative teaching. Moreover, recognizing teaching excellence by rewarding and publishing exemplary teaching scholarship and practice including efforts of instructors who steer the SCL approach forward, and giving awardees opportunities to share good classroom examples and innovative learning practices, can stimulate the adoption of innovative and good practices in higher education institutions.

### **2.4 Governance and administration**

Strategic leadership takes societal developments and trends, changes in the goals and purposes of higher education and advances in research on learning and teaching into account, sets clear expectations, and puts necessary resources, structures and processes in place (e.g., guidance, support and monitoring) in order to implement policies on SCLT. Thereby new institutes, centers or departments for teaching and learning can facilitate in-house discussions, research and training, and cooperation among instructors with regard to the design, development and delivery of curricula as well as the assessment of student performance.

Student-centered HEIs allow flexible learning pathways by broadening the curriculum to include elective courses, and by enabling flexible entry routes to study programs as well as flexible delivery modes through, for example, part-time, distance and e-learning provision.

Flexible learning pathways provide students with choices about what, how, when and where they study. HEIs also strengthen community learning connections and partnerships with research, entrepreneurship and with the local community and businesses (e.g., service-learning courses, university community partnerships, internship or field experience, faculty exchanges, practitioners in courses) to feed developments in the labor market, in research and in society back into curricula. Finally, HEIs involve student representatives and other stakeholders (e.g., employers) in institutional governance, quality assurance and curriculum design to increase accountability. The involvement of students as, for example, program committee members at the early stage of curricular design across all disciplines can ensure that students' experiences, views and (mis)conceptions are taken into account to enhance the usefulness of higher education curricula.

## **2.5 Policies and finance**

Higher education policies are the guiding frameworks or roadmaps that depict the collective values of and political vision on the goals and specific objectives of teaching and learning, the actions and actors to achieve these objectives, their evaluation, and the timeline of the policy. Higher education policies on SCLT can stand alone (e.g., the commitment of an HEI to become a student-centered lifelong learning organization; institutional employment policies), or be part of the broader higher education landscape (or other) policies (e.g., the Bologna Process in Europe with its tools and instruments). One of the key challenges concerning such policies is policy coordination in the sense of purposefully aligning institutional policies or combining these within an overarching policy in order to be able to achieve the targeted objectives. Another challenge is rigorous and systematic data collection and analyses that yield evidence for policy decisions.

Finally, SCEs at all levels of higher education governance – institutional, national, supranational – are designed and implemented, and ought to be evaluated, as a collaborative effort in communities of practice on teaching and learning. Such communities of practice inevitably include all major stakeholders in higher education processes and outcomes, such as students, teachers, institutional leaders, policy makers, employers' representatives, teachers' unions, educational researchers and other higher education practitioners or stakeholders (Klemenčič, 2019).

## **3 Conclusions**

Reforms of higher education toward SCLT are a considerable task. The shift from the instruction paradigm to the learning paradigm in higher education as introduced by Barr and Tagg (1995) is still far from accomplished around the world. For such a shift to occur, a change in culture is needed to internalize the explicit purposes and principles of SCLT (e.g., Blumberg, 2019).

Drawing on the recently published Routledge International Handbook of Student-Centered Learning and Teaching in Higher Education (Hoidn & Klemenčič, 2020a), this paper presented five components and a set of indicators to evaluate the presence of SCLT in a given institution, study program, course or higher education system. This SCEs Framework can assist higher education stakeholders in developing their courses, programs, HEIs and HES to become more student-centered (Hoidn, 2020).

Nevertheless, the challenge remains for university leaders, administrators, instructors, students and other stakeholders in learning and teaching in higher education to remain open to change and further develop their policies, strategies, cultures, processes, structures, concepts and practices to create an academic environment conducive to student-centered forms of learning and teaching.

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