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| Authors | Christersson, Cecilia;Staaf, Patricia;Braekhus, Sissel;Stjernqvist, Rickard;Pusineri, Andrea Giulia;Giovani, Carlo;Sancassani, Susanna;Corti, Paola;Lebigot, Gerald;Biri, Venceslas;Mainelli, Xenia Una;van den Berg, Frank;Queckenberg, Robert;Freitag, Kornelia;Lippold, Susanne;Giménez Font, Xavier;Collins, Therese;Frahill, Aaron;McCarthy, Marian;O'Mahony, Catherine;Pillard, Loïc;Emmanuel, Sylvestre;Antille, Marine;Hookey, Duncan;Cappy, Grace;Dunn, Ian;Turner, Andrew;Dakovic, Goran;Peterbauer, Helene;Zhang, Thérèse |
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University College Cork, Ireland
Coláiste na hOllscoile Corcaigh

EUROPEAN UNIVERSITY ASSOCIATION

**LEARNING & TEACHING PAPER #5**

# Promoting active learning in universities

## Thematic Peer Group Report

**Chairs**: Cecilia Christersson, Patricia Staaf
Malmö University, Sweden

**EUA coordinators**: Goran Dakovic, Helene Peterbauer, Thérèse Zhang

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**European University Association asbl**

Avenue de l'Yser 24
1040 Brussels
Belgium
+32 (0) 2 230 55 44

Rue du Rhône 114
Case postale 3174
1211 Geneva 3, Switzerland
+41 22 552 02 96

www.eua.eu · info@eua.eu

# Introduction

This report provides an overview of findings of an EUA Thematic Peer Group (hereafter "the group"; see also Annex)[1] that was invited to discuss ways to promote active learning in universities. The most notable strength of this group is that it carried out what its own topic advocates: each participating university was also expected to nominate a student to take part in the group's work. The students also compiled a report summarising their observations from the group discussions and this has been used as inspiration for this report. The group's considerations and findings are furthermore in line with EUA's Principles for the Enhancement of Learning and Teaching.[2]

Due to the diversity of existing approaches to active learning in higher education, the group chose not to establish a single definition of active learning. Rather, diverse aspects of the concept were considered and embraced, with cases from participating universities shared as good-practice examples. This is aimed to allow readers of this report to consider diverse approaches to active learning and how they can be implemented. Before developing the findings of the group, it is worth exploring briefly the concept of active learning and reasons why the group considered it essential for universities to adopt active learning.

The following seminal, conceptual considerations guided the group's subsequent identification of challenges and drafting of recommendations to meet these challenges (see Chapter 2).

## ON THE CONCEPT OF ACTIVE LEARNING[3]

Active learning consists of a broad range of pedagogical processes that emphasises the importance of student ownership and activation. It harnesses the benefits of curiosity-driven methods, research-based/problem-based learning and diverse assessment practices, thus stimulating the learner's critical thinking skills. It is defined by a student-centred approach to learning and teaching, in which teachers are seen as facilitators of learning. Active learning also rejects a bi- or unilateral view on education provision but aims to involve a multitude of stakeholders. Furthermore, challenge-based and transformative learning aim to effect a fundamental change in society; hence, active learning has a holistic outlook and dimension.

Beyond these fundamental characteristics of active learning, it is also iterative, dialogical and mostly collaborative; it is about the doing of understanding and, hence, about the application of knowledge in new and authentic situations.[4] Active learning is performative and needs to be intentional, well designed and framed. Active learning begins with the design of a curriculum that is student-centred, and that draws on students' intelligences[5] and on their prior knowledge and experience in determining how students should demonstrate their understanding of course content.[6] Active learning should be universally designed to include all learners, providing them with multiple means of engagement, of action and of expression.[7] Such design has to take place at a variety of levels: spatial, temporal, cultural and curricular. An active learning environment invites students to create and share their learning in spaces, whether physical or virtual, which are democratic, flexible and fluid.[8] Active learning also demands a different construction of schedules, which allows for discussion, logic, reasoning, experimentation and feedback.

The greatest challenge faced by universities is a cultural one, since active learning moves beyond tips and tricks that are immediate, instrumental and remedial to learning patterns that are long-term, investigative, incremental and that invoke a growth mindset.[9] Active learning casts the teacher in the role of facilitator and coach and invites the student to take responsibility for learning. Hence, they need to enter into a new contract and relationship and negotiate new ways of working and learning. There needs to be a cultural shift to accommodate an active learning stance and this shift is possible only in the context of nurturing and supporting learning communities for staff as well as students.

Research indicates that active learning works across disciplines, genders and contexts[10] and that it is transformational and long-term. Risk-taking and moving beyond comfort zones is necessary. Students and teachers need to rethink what it means

to learn and that learning is a continuous, life-long process for all. Hence methodologies such as flipped classroom, scenario-based learning, field work, role play and simulation emphasise innovation and open up new possibilities for learning.

## WHY INVESTING IN ACTIVE LEARNING IS IMPORTANT

The indispensable societal role of universities is defined by their function as educators of critical, creative thinkers capable of making a contribution and an impact in an ever-changing and "super complex"[11] world. Graduates should furthermore embrace lifelong learning and see universities as a given option for continuous education.[12] This requires, however, that learning in the 21st century develops into an active process. Traditional approaches to learning, mainly manifested through lectures, are not sufficiently effective in promoting ownership and application of knowledge, key to the development of understanding, but rather supporting the passive absorption of content.[13]

If individuals are to consider themselves life-long and life-wide learners, there can be no power differential between teacher and student. Active learning can provide a valuable contribution to implementing a cooperative institutional vision of learning and teaching in higher education, which educates active, well-educated, well-rounded and responsible, global citizens.[14] In doing so, universities observe their third mission and contribute to the achievement of the Sustainable Development Goals: in particular no. 4, Quality Education[15], but they contribute also to the other Sustainable Development Goals indirectly, through citizens that contribute to an open, inclusive, democratic and knowledge- and evidence-based society. Active learning is a key approach to achieving this goal, since it is based on an involvement of all stakeholders in higher education.

An argument against active learning is the (perceived) cost-effectiveness of traditional lectures. However, active learning has financial advantages as well, as any space can be used as a learning space. Furthermore, the outcome of active learning, i.e. enhanced, more student-centred learning, entails benefits that should outweigh concerns over the financial input associated with active learning. This is an aspect to be considered, especially in view of the challenges posed to universities by alternative models of education, raising questions regarding the continued societal relevance of universities. Active learning is a way to develop uniquely human skills, which are becoming evermore relevant to both employers and societies. Establishing active learning across universities – as an approach used alongside lectures – would thus help to preserve universities' unique role as educators of active citizens and professionals fit for today's and tomorrow's societies.

# A cultural shift in university education

## CHALLENGES

As a starting point for its work, the group acknowledged that active learning is already institutionalised in the broadest sense, i.e. the acknowledgement of students as decision-makers in shaping their learning environment.[16] Yet further comprehensive and strategic institutional practices are needed for students and teachers to be fully involved in this process and to create ownership among all parties engaged in higher education that implements active learning. Fully implementing such an environment would require a cultural shift involving staff, students, institutional leaders and the wider higher education community.

The group identified three key challenges for promoting active learning, which are fundamental aspects of the overarching challenge of inducing a cultural shift in university education. These challenges are not to be understood as separate but intertwined:

1. Students must be invited to become active partners in learning, even if active learning cannot change the fact that many university teachers take on the role of gatekeepers of education.

2. Comprehensive and innovative (re)design processes are needed, for curriculum, teaching approaches as well as the learning environment.

3. Universities need to embrace and expand the concept of active learning by appreciating their position as part of learning communities.

The following suggestions could be considered to address these three challenges.

### Challenge #1

**Students and teachers as co-creators of knowledge**

A new relationship between students and teachers is needed to facilitate a comprehensive and sustainable culture shift within higher education institutions. This process should concern all aspects of education:

- **Learning and teaching:** the value of learning and teaching should be highlighted by emphasising the learning process, not only the outcome. The role of the teacher needs to change from that of a provider of knowledge to that of a facilitator of learning. Students need to be considered co-creators of their own knowledge and be given the opportunity to explore this role through, e.g. research-, problem- or inquiry-based learning and participation in decision-making processes concerning learning and assessment methods:

    ◊ Pedagogic approaches should proceed from reality to abstraction, e.g. by using authentic (i.e. real-life), practical tasks as starters for learning, eventually in collaboration with stakeholders representing society, e.g. potential employers and non-governmental organisations.

    ◊ The curriculum should allow students to take active learning introduction courses, explore suitable learning methods or define personal academic goals at the beginning of their studies.

- **Learning processes:** by involving students in, e.g. evaluating their curriculum and subject-related research, they are made aware of their own learning process.

- **Co-creation:** the concept implies that teachers learn as well as students and should thus acknowledge and embrace the need for further knowledge:

    ◊ Universities foster trust and co-creation on campus by encouraging teachers to openly see knowledge gaps as a chance to investigate and learn together with their students. Professional development offered by the university should also address this question.

- **Formative assessment practices:** students should not only learn to pass exams, but to gain valuable professional and transversal skills for life-long learning. Thus, the value of feedback mechanisms as well as peer- and self-assessment should be promoted, hence changing the notion of exams from that of an end in itself to that of a means of assessing whether the processes preceding the exam have been successful. Exams are a celebration of knowledge. Assessment practices should be formative and value student choice for the format of assessment:

    ◊ Institutions need to develop pedagogical alternatives to encourage alternative assessment methods, e.g. by incorporating feedback-oriented coursework, offering credits for internship experiences and through individual research projects.

    ◊ Theory and practice need to be more closely related and a part of all learning and assessment. Students would better realise the broader benefits of their education if they can relate their course or curriculum's learning outcomes to specific skills. A dialogue between universities and potential employers may contribute to a better articulation between real life and course requirements.

- **Redesign-processes:** to ensure that knowledge production and learning processes are co-created:

    ◊ Students should be involved at all levels in redesigning higher education, i.e. academic strategies and policies, the curriculum, the design of learning space and time, assessment practices and the use of technology.

    ◊ Design thinking should be applied and hence include a needs analysis, an experimentation and evaluation phase and enough flexibility to adjust if needed, in order to make them student-centred.

- **Institutional policies** should steer towards promoting active learning and empowering teachers:

    ◊ Staff training on active learning should be part of continuous professional development. Design processes and design thinking could help to consider the needs of individual students.

    ◊ Teachers' commitment and work should be valued in a visible way to strengthen the status of teaching in higher education.

- **National and international policies:** external drivers can be fundamental for engaging university communities in renewing learning and teaching approaches. Such processes should, however, not infringe on the autonomy of higher education institutions.

Different levels of acquaintance with the concept of active learning need to be considered when introducing and/or promoting it. Students and teachers need to be offered a mindful involvement in this process, and perhaps a transition phase to adjust. At the same time, accountability, in terms of student failure to complete study requirements and the institution's failure to lower drop-out rates etc., needs to be taken into account.

## Challenge #2

**Redesigning the learning environment for and through active learning**

New technologies allow students and teachers to communicate and exchange assignments anytime. Due to this development, and also taking into account the increasing number of students who have part-time employment, universities now have the opportunity to wholly redesign the way learning space and time are used and adjust them to foster active learning, for example, by:

- Providing **learning environments** which support active learning and embrace both formal and informal learning spaces. Active learning classrooms[17] and flexible classrooms[18] need to be advocated and further developed at higher education institutions.

- Exploiting the possibilities provided by **technology** to use spaces other than the classroom for learning, and expanding the use of classrooms to diverse disciplines, departments and other stakeholders:

    ◊ Institutions will continue to face limitations regarding physical space, either due to financial or regulatory restrictions. The answer to limited physical space is, however, not (only) to acquire additional space, but to think of more targeted, creative and flexible ways to use and redesign available space. This process could involve the use of technology to broaden the definition of learning space. E-learning, learning management systems and other platforms can potentially turn any room (e.g. the student's home, the library, the cafeteria) into a learning space. This would reduce the pressure on current classrooms to serve as sole places of learning and allow these spaces to be used across departments and disciplines, and more intensely outside office hours.

    ◊ Students should be included in redesigning the space and time of learning as co-creators. Especially in terms of using new technology, there is a need for acknowledging the potential of students to provide smart, creative, functional and targeted solutions for a better way of learning.

- Respecting the **diversity**, needs and different work rhythms of students:

    ◊ Since millennials and younger generations have become

accustomed to a constant influx of information, there is a need to engage students in a new way. In this context, teachers must be made aware of their vital role in keeping universities relevant.

◊ Teachers should encourage students to use their smart devices as tools for learning and research, but in order to do that teachers need to be supported in developing flexibility and adaptability in their methods, e.g. with a professional development on the possible uses of technology. When implementing these changes, institutions need to advance in small steps and allow for extra time and budget for experimentation and the possibility of failure as an opportunity to learn. This would also encourage long-term planning instead of quick fixes. On a similar note, for some institutions, small-scale active learning might be more appropriate, so that active learning does not appear out of reach but connected to their daily practices.

## Challenge #3

**Establishing learning communities**

The new understanding of universities as learning organisations, where education is based on the concept of co-creation, should be reflected in internal and external interactions and communication. In order to fully implement this new identity, universities need to consider themselves as partners in broader learning communities.[19] The following factors have the potential to contribute to the introduction of a comprehensive and inclusive cultural shift in higher education extending beyond the campus:

- Universities need to redefine their role as **learning organisations** involving multiple internal stakeholders, especially students:
  - ◊ Continuous professional development offered to teachers and enhanced research on learning and teaching – to establish a stronger link between learning and teaching and research – are fundamental aspects of this new role.
  - ◊ Universities' role in facilitating lifelong learning is a crucial part of their role as learning organisations and their functions within learning communities.
- Universities need to reconsider their mission in the context of interdisciplinary, local, regional, national and international **networks**, including other organisations with a stake in higher education.
- Universities need to re-emphasise their position at a **cross-section with society** and their mission to promote change through ongoing dialogue with local, regional, national and international communities.

# Conclusions

Active learning has the potential to fundamentally shift the way universities take responsibility as drivers of societal and educational changes. Active learning provides possibilities for both students and teachers to re-define learning in higher education and to move beyond comfort zones into collaborative learning and co-creation of knowledge.

Active learning is an educational philosophy geared towards ensuring a development of students into active citizens with global engagement as well as towards ensuring the involvement of all higher education stakeholders. Thus, active learning should be part of universities' strategies to observe their societal mission and a part of education for sustainable development.

# Annex

## EUA LEARNING & TEACHING THEMATIC PEER GROUPS

As part of its work on learning and teaching, EUA carries out activities with the aim to engage with university communities in charge of learning and teaching. One of these activities is coordinating the work of a set of Thematic Peer Groups. The groups consist of universities selected through a call for participation to:

- discuss and explore practices and lessons learnt in organising and implementing learning and teaching in European universities, and to
- contribute to the enhancement of learning and teaching by identifying key recommendations on the selected theme.

The 2018 Thematic Peer Groups, active from March to November, invited participating universities to peer-learning and exchange of experience, while at the same time they contributed to EUA's policy work as the voice of European universities in policy debates, such as the Bologna Process.

Each group was chaired by one university and supported by a coordinator from the EUA secretariat. The groups met three times to discuss key challenges related to the theme, how to address the challenges through innovative practices and approaches, and what institutional policies and processes support the enhancement in learning and teaching. In addition, the groups were welcome to discuss any other issue that was relevant to the theme. Outside the three meetings, the groups were free to organise their work independently. Members of the groups also attended a final workshop, where they had the opportunity to meet and discuss the outcomes of other groups and address synergies. The workshop was hosted by the University of Porto, Portugal on 19-20 November 2018.

**Composition of the Thematic Peer Group 'Promoting active learning in universities'**

- Malmö University, Sweden: Cecilia Christersson and Patricia Staaf (chairs), Sissel Braekhus and Rickard Stjernqvist (students)
- Catholic University of Louvain, Belgium: Vincent Wertz
- Politecnico di Milano, Italy: Andrea Giulia Pusineri and Carlo Giovani (students), Susanna Sancassani and Paola Corti
- University Paris-Est Marne-la-Vallée, France: Gerald Lebigot (student) and Venceslas Biri
- University of Twente, The Netherlands: Xenia Una Mainelli (student) and Frank van den Berg
- Ruhr University Bochum, Germany: Robert Queckenberg (student), Kornelia Freitag and Susanne Lippold
- University of Barcelona, Spain: Xavier Giménez Font
- University College Cork, Ireland: Therese Collins and Aaron Frahill (students), Marian McCarthy and Catherine O'Mahony
- University of Lausanne, Switzerland: Loïc Pillard (student), Sylvestre Emmanuel and Marine Antille
- Coventry University, United Kingdom: Duncan Hookey and Grace Cappy (students), Ian Dunn and Andrew Turner
- Group coordinators: Goran Dakovic (Policy & Project Officer at EUA until August 2018), Helene Peterbauer (Policy & Project Officer) and Thérèse Zhang (Deputy Director, Higher Education Policy unit; both from August 2018 onwards)

# Endnotes

1 The group would like to thank Malmö University, University College Cork and the University of Twente for hosting their meetings. The group is also grateful to the members of the other three EUA TPGs for their feedback and inputs during the joint workshop organised in Porto, in November 2018.

2 European Forum for Enhanced Collaboration in Teaching (EFFECT), Ten European Principles for the Enhancement of Learning and Teaching. http://bit.ly/EFFECTprinciples (accessed 09/01/2019).

3 A majority of the sections on the concept and the need to invest in AL were written by TPG members Paola Corti (Politecnico Milano), Xavier Giménez Font (University of Barcelona) and Marian McCarthy (University College Cork).

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This paper is one of a series of reports specifically focused on learning and teaching. It is designed to gather the knowledge and experiences of experts on the topic from across Europe. EUA's activities in learning and teaching aim at enhancing the quality and relevance of higher education provision, underline the importance of learning and teaching as a core mission and advocate for learning and teaching activities to be geared towards student learning and success.

EUROPEAN UNIVERSITY ASSOCIATION
Avenue de l'Yser, 24
1040 Brussels
Belgium
T: +32 2 230 55 44
info@eua.eu
**www.eua.eu**