

# Learning by engaging: Using active learning strategies in higher education

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## Abstract

The Universitat de Barcelona research group in teaching innovation GIDTAAVE organized the 2nd International Conference in Experiences in Active Learning in Higher Education, which was held online on 5 November, 2021. The aim of the conference was to provide a forum for high-quality research in teaching innovation in higher education, focusing on active learning methodologies. The event provided an excellent opportunity for lecturers from different universities to discuss their work in a relaxed atmosphere and to develop long-term collaborative relationships. Specifically, twelve papers were presented by authors from different Spanish Universities (Universidad de Salamanca, Universidad de Cantabria, Universidad de Navarra, Universidad Juan Carlos I and Universidad Carlos III, to name a few), who had the opportunity to share their experiences with other colleagues. Each session was followed by fruitful discussions among the participants. The keynote speech of the conference was given by Steven Proud, who is currently the Director of Undergraduate Studies and a Reader in Economics Education in the School of Economics at the University of Bristol. Steven Proud gave a very interesting talk entitled "What are the barriers to active learning in economics?".

## Keywords

Active Learning, Flipped Classroom, Problem Based Learning, Peer instruction, Higher Education.

## Recommended reference

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#### Títol (català)

Aprendre participant: l'ús d'estratègies d'aprenentatge actiu en educació superior

#### Resum

El grup de recerca en innovació docent de la Universitat de Barcelona GIDTAAVE va organitzar la Segona Conferència Internacional en Experiències d'Aprenentatge Actiu en Educació Superior que es va fer en línia el 5 de novembre del 2021. L'objectiu de la conferència va ser proporcionar un fòrum per a la recerca d'alta qualitat en la innovació docent en educació superior, centrant-se en les metodologies d'aprenentatge actiu. L'esdeveniment va suposar una excel·lent oportunitat perquè professors de diferents universitats discutissin el seu treball en un ambient distès i desenvolupessin relacions de col·laboració a llarg termini. Concretament, es van presentar dotze ponències d'autors de diferents universitats espanyoles (Universitat de Salamanca, Universitat de Cantàbria, Universitat de Navarra, Universitat Rey Juan Carlos o Universitat Carlos III de Madrid, per citar-ne algunes), que van tenir l'oportunitat de compartir les seves experiències amb altres col·legues. Després de cada sessió, es van organitzar debats fructífers entre els participants. La ponència convidada de la conferència, titulada «Quins són els obstacles per a l'aprenentatge actiu en economia?», la va impartir Steven Proud, que actualment és director d'estudis de grau i lector en Educació Econòmica a l'Escola d'Economia de la Universitat de Bristol.

#### Paraules clau

Aprenentatge actiu, Aula invertida, Aprenentatge basat en problemes, Aprenentatge entre iguals, Educació superior.

#### Título (castellano)

Aprender participando: el uso de estrategias de aprendizaje activo en Educación Superior

#### Resumen

El grupo de investigación en innovación docente de la Universitat de Barcelona GIDTAAVE organizó la 2ª Conferencia Internacional en Experiencias de Aprendizaje Activo en Educación Superior que se celebró online el 5 de noviembre de 2021. El objetivo de la conferencia fue proporcionar un foro para la investigación de alta calidad en la innovación docente en Educación Superior, centrándose en las metodologías de aprendizaje activo. El evento supuso una excelente oportunidad para que profesores de diferentes universidades discutieran su trabajo en un ambiente distendido y desarrollaran relaciones de colaboración a largo plazo. Concretamente, se presentaron doce ponencias de autores de diferentes universidades españolas (Universidad de Salamanca, Universidad de Cantabria, Universidad de Navarra, Universidad Juan Carlos I o Universidad Carlos III, por citar algunas) que tuvieron la oportunidad de compartir sus experiencias con otros colegas. Cada sesión fue seguida de fructíferos debates entre los participantes. La ponencia invitada de la Conferencia fue impartida por Steven Proud, que actualmente es el director de los Estudios de Grado y Lector de Educación Económica en la Escuela de Economía de la Universidad de Bristol. Steven Proud impartió una ponencia muy interesante titulada *¿Cuáles son los obstáculos para el aprendizaje activo en economía?*

#### Palabras clave

Aprendizaje activo, Aula invertida, Aprendizaje basado en problemas, Aprendizaje entre iguales, Educación Superior.

University educators increasingly recognize the value of active learning initiatives, that is, activities that engage students in the learning process as opposed to passive learning, such as sitting in a lecture hall and taking notes. The reason for this is that when students engage in active learning, such as working in a group to apply new knowledge, they are more likely to retain what they've learned.

Indeed, numerous studies have shown that active learning strategies, such as the flipped classroom, collaborative and cooperative learning, peer instruction, and problem-based learning (PBL), facilitate a conceptual understanding of subject matter more effectively than traditional methods. However, there are also other benefits gained from actively engaging students in the learning process, including: (1) building stronger connections between students, (2) increasing the students' motivation and engagement, (3) improving effective student-lecturer interactions, and (4) giving lecturers insights into how well students grasp new concepts and progress in knowledge acquisition.

For this reason, the Universitat de Barcelona (UB) research group in teaching innovation GIDTAAVE, funded under the project REDICE20-2486, organized the 2nd International Conference in Experiences in Active Learning in Higher Education, which was held online on 5 November, 2021. The aim of the conference was to provide a forum for high-quality research in innovation in higher education focusing on active learning methodologies. The event provided an excellent opportunity for lecturers from different universities to discuss their work in a relaxed atmosphere and to develop long-term collaborative relationships. Specifically, twelve papers were presented by authors from different Spanish Universities (Universidad de Salamanca, Universidad de Cantabria, Universidad de Navarra, Universidad Juan Carlos I or Universidad Carlos III, to name a few), who had the opportunity to share their experiences with other colleagues. Each session was followed by fruitful discussions among the participants.

The keynote speech of the conference was given by Steven Proud, who is currently the Director of Undergraduate Studies and a Reader in Economics Education in the School of Economics at the University of Bristol. Steven Proud gave a very interesting talk entitled "What are the barriers to active learning in economics?".

In order to promote future research and discussion on the value and implementation of active learning strategies in higher education and to encourage lecturers to use them in their teaching practices, the journal REIRE is publishing this special edition, which brings together some of the most relevant presentations from the conference. All the selected papers followed the double-blind peer review procedure before being finally accepted for publication. This special issue includes four articles out of the twelve papers presented at the conference. First, it includes a very interesting article written by the keynote speaker, Steven Proud, entitled: "If you build it, will they come? A review of the evidence of barriers to active learning in university education". In his paper, Proud recognizes that the dominant method of teaching in economics is still the lecture, supported by chalk-and-talk methodologies, in part due to the educators' preferences, but also in part due to a range of different hurdles that make implementing more inventive active learning methodologies difficult (i.e., the structures and the spaces used for education in the 2020s are still very similar to the structures used at the advent of university education). However, there is a wealth of evidence that introducing active learning strategies, such as flipping the classroom, results in significant benefits for student outcomes. Therefore, this paper concludes that since active learning improves outcomes by engaging students with the material, and encouraging them to discuss and challenge the ideas they receive, there is an urgent need to consider where the barriers for active learning actually are, and actively work to remove these hurdles. Therefore, three more papers have also been included in this special edition. Lera-Torres et al. (2022) examine the benefits of the new technologies that university professors used during the lockdown in Spain due to the covid-19 pandemic, to assess the consolidation of some of these innovations in the future. Surprisingly, some of these new technologies fostered a more active attitude in students. González-Sánchez et al. (2022) focus on a very specific active learning strategy: "the service-

learning methodology". This methodology not only requires students to actively participate, it also facilitates education for sustainable development (ESD). Finally, Abío et al. (2022) study peer interactions in the university classroom. Specifically, they evaluate the effects of teamwork, Team Based Learning (TBL), on individual academic performance.

Although the strategies presented are very different, all of the studies agree that introducing activity and cooperation methodologies into the classroom is effective since it ensures that students actively engage in their learning as they interact with a topic by working on activities that reinforce knowledge, concepts and skills. More precisely, active learning strategies enhance the development of certain skills, such as critical thinking, collaborative working and problem solving, that are important throughout the students' education, both in school and at university, and are also necessary for successful professional development.

We hope you will benefit from the papers in this special issue on active learning in higher education and that you will find them inspiring and useful for your teaching.

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