

Actas / Proceedings / Actes

# 4th International Congress: Education and Knowledge

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(Eds.)



International Congress: Education and Knowledge

Congreso internacional: Educación y Conocimiento

Congrés internacional: Educació i Coneixement

Octaedro  Editorial

# Libro de Actas / Proceedings / Llibre d'actes

4th International Congress: Education and Knowledge  
4º Congreso Internacional: Educación y Conocimiento  
4t Congr s Internacional: Educaci  i Coneixement

Rosabel Roig-Vila, Jordi M. Antol  Mart nez, Carolina  
Lorenzo  lvarez, Ver nica Onrubia-Mart nez &  
Alejandro S nchez Ronco (Eds.)



Construyendo el conocimiento de forma colectiva

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EDICIÓN:

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Primera edición: junio de 2025

© De la edición:

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© Del texto: Las autoras y autores

© De esta edición:

Ediciones OCTAEDRO, S.L.  
C/ Bailén, 5 – 08010 Barcelona  
Tel.: 93 246 40 02 – Fax: 93 231 18 68  
www.octaedro.com – octaedro@octaedro.com

ISBN: 978-84-1079-144-2

Producción: Ediciones Octaedro

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Publicación en Acceso abierto – Open Access

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## Challenge-based innovation immersion in a rural context: qualitative analysis of the students' perspective

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The discussion on immersive learning environments requires an in-depth understanding of the concept and its implications for the educational process. Contemporary higher education faces the challenge of adopting methodologies that promote experiential learning. Challenge-Based Innovation (CBI) emerges as a student-centred approach, integrating interdisciplinary collaboration and immersion in real contexts. This study was carried out in Miranda do Douro, a region in the north-east of Portugal known for its traditional agricultural practices and the preservation of the Mirandesa language and music. The aim of this study was to understand, from a qualitative perspective, how students experienced immersive learning in a rural context and to identify the dynamics of co-creation, collaboration and the development of emerging competences. Nineteen students from different nationalities (Portugal, Brazil, Guinea-Bissau, Angola, Cape Verde and Nepal) and academic backgrounds (health, communication, tourism, education and engineering) took part. They were organised into five teams to respond to challenges related to the enhancement of cattle and sheep farming, the promotion of traditional language and music and the rediscovery of the Mirandês donkey as a cultural and educational asset. Over the course of an intensive week, the students took part in daily co-creation activities, followed by individual and peer reflective assessments each evening. The qualitative methodology combined content analysis, discourse analysis and thematic analysis, with cross-checking of the data applied at four points in the reflective evaluations: on the first day, words entered into a collective software generated a word cloud, highlighting key concepts; on the second day, the students selected symbolic images representing their team roles; on the third day, reflective videos documented the maturation of ideas and communication skills; and at the end of the week, intra- and inter-group evaluations completed the data set. The results showed that the students' word choices and speeches demonstrated a progressive commitment to the territory, centred on concepts such as "culture", "collaboration", "learning", "diversity" and "creativity", and expressions such as "expanding these projects to reach the whole of Portugal". The symbolic representation of the team's roles revealed profiles of creativity, organisation, communication and technical support, with strong alignment between the students' self-perceptions and peer evaluations. Analysing the videos indicated an affective appropriation of the projects and the evolution of the ideas, visible in expressions such as 'we want people to use our idea in real life', 'our next step is to filter the feedback and improve our solution' and 'together we want to guarantee its preservation, this is our project'. However, there were also initial moments of hesitation, expressed by the students through statements such as 'anticipating the preparation of the project' and 'at first, we found it difficult to organise the ideas', suggesting the need for stronger methodological guidance at the beginning. The co-created solutions were considered by the students

to be creative and feasible, with strong potential for application, including the project proposing the use of waste wool for acoustic and thermal insulation, Mirandês cattle management initiatives led by butchers, digital platforms to promote the Mirandesa language and immersive cultural events aimed at revitalising traditional music and rediscovering the role of the Mirandês donkey. In conclusion, CBI was recognised as a transformative educational experience, promoting the development of interpersonal skills, critical thinking and a sense of territorial belonging. These results were confirmed by the students' speeches and the consistency of the data obtained from different sources. Despite the promising results, there was a need to reinforce initial support for project preparation in order to promote earlier maturation of ideas. Overall, CBI shows potential as an innovative educational strategy by combining co-creative, immersive, multidisciplinary and intercultural practices in authentic learning contexts.

