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BLENDING INTENSIVE PROGRAM FOR ENHANCING KNOWLEDGE AND SKILLS TOWARDS THE USE OF ARTIFICIAL INTELLIGENCE BY PHYSIOTHERAPY STUDENTS

A. Alves Lopes¹, P. Chana Valero², J. Alessie³, A. Tavakoli⁴, M. Dvoracek⁵, O. Lastovicka⁵, T. Klein⁵, D. Schneider⁴, O. Lehtiniemi⁴, F. Garcia-Muro San José⁶, R. Saris⁷, C. Grüneberg⁸, A. Arntz⁸, M. Teztlaff⁸, M. Rowe⁹

¹Escola Superior de Saúde do Alcoitão (PORTUGAL), ²Universidad Pontificia de Comillas (SPAIN), ³Avans University of Applied Sciences (NETHERLANDS), ⁴Satakunta University of Applied Sciences (FINLAND), ⁵Palacký University Olomouc (CZECH REPUBLIC), ⁶Universidad San Pablo-CEU (SPAIN), ⁷HAN University of Applied Sciences (NETHERLANDS), ⁸Hochschule Bochum - Bochum University of Applied Sciences (GERMANY), ⁹University of Lincoln (UNITED KINGDOM)

Introduction

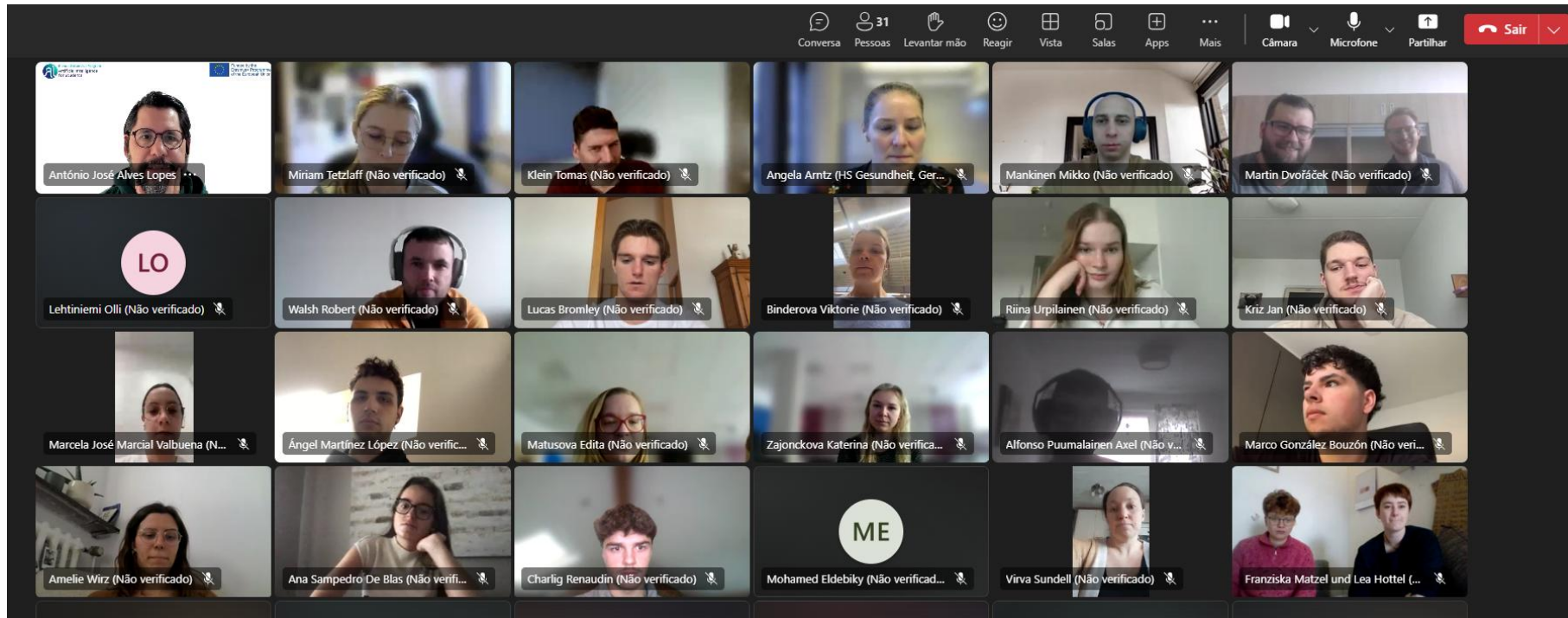


- The **integration of artificial intelligence (AI)** in the health sector is transforming how physiotherapists learn, make decisions, and provide care. Recent studies anticipate that AI-enabled tools—such as adaptive learning platforms, large language models, predictive analytics, and virtual coaching—will soon be incorporated at every stage of the physiotherapy workflow
- **Blended Intensive Programs (BIP)** combine short-term mobility with online collaboration in higher education. These programs enable students from Higher Education Institutions (HEI) to engage in interdisciplinary learning
- This study explores the **self-reported impact of a BIP focused on Artificial Intelligence (AI)** and its applications in self-productivity, education, research, and clinical practice.

Methodology

- **The BIP titled "Artificial Intelligence for Students" was implemented at the beginning of 2025, running from January 27 to February 21, and involved nine European institutions.**
- The program aimed to enhance participants' understanding of Artificial Intelligence (AI) capabilities and relevance in education, research, and clinical practice within healthcare professions. It provided a comprehensive overview of AI technologies, their potential applications in educational and clinical settings, and facilitated discussions on strategies for optimizing learning experiences, research outcomes, and clinical interactions.
- The BIP was structured to run over a month and involved 15 teachers and 30 students. It was divided into two distinct phases: online sessions and an in-person week. The program's design enabled both virtual and in-person engagement, creating a platform for exploring various generative AI technologies and promoting collaboration among participants.

Methodology



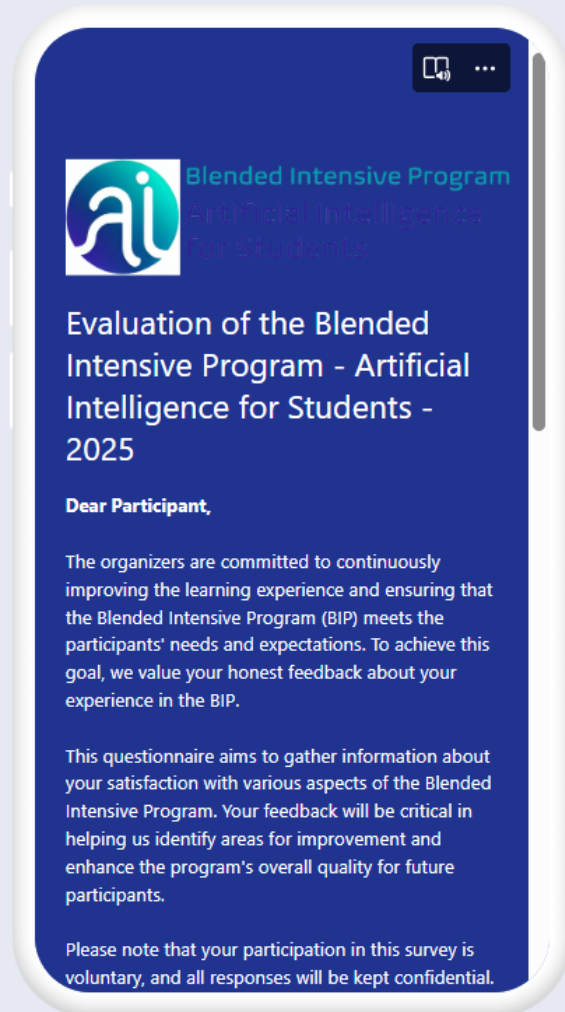
- The **first phase of the program consisted of two online sessions** facilitated by one of the partner institutions. These initial sessions introduced participants to the concept, history, and trends of Artificial Intelligence, along with its applications in learning, research, and clinical practice.
- This phase aimed to provide a foundational understanding of AI in these contexts.

Methodology



- The **second phase of the program was conducted in person over one week.** Each day was dedicated to a different topic, including AI as a personal coach, learning assistant, creative partner, research aid, and clinical companion. The program also addressed the opportunities, challenges, and ethical considerations of integrating AI into physiotherapy education and practice.
- During this week, students were organized into multinational groups and tasked with developing a proposal to tackle specific practical challenges related to AI, education, and health, using the Double Diamond Model (Discover, Define, Develop, Deliver).
- **This phase emphasized collaboration and problem-solving, allowing students to apply theoretical knowledge to practical implementations of generative AI.**

Results



- **An online questionnaire was then distributed to all the students to gather both quantitative and qualitative data regarding their experiences.**
- The quantitative component included Likert-scale questions to assess participants' perceptions of the program's content, structure, support, and collaborative elements. The qualitative component included open-ended questions, allowing participants to provide more detailed feedback on their learning outcomes and overall experience.
- **We received 28 survey responses out of a total of 30 student participants, resulting in a response rate of approximately 93.33%.**

Results

Student feedback about the Blended Intensive Program's content and activities

● Strongly Disagree ● Disagree ● Neither agree nor disagree ● Agree ● Strongly Agree

- Participating in this BIP improved my understanding of AI in general and its ethical concerns.
- Participating in this BIP has enhanced my understanding and skills concerning the integration of AI in personal organization and...
- Participation in this BIP has increased my knowledge and skills in integrating AI to support personal learning.
- Participation in this BIP has increased my knowledge and skills in integrating AI to support creativity.
- Participation in this BIP has increased my knowledge and skills in integrating AI to support research
- Participation in this BIP has increased my knowledge and skills in integrating AI to support clinical practice
- Participating in this BIP helped clarify the role of AI in my profession and its significance for my future professional practice.
- Participating in this BIP has enhanced my awareness of different cultures and improved my communication skills.
- The lectures (online/person), provided relevant information that increased my awareness and knowledge about the topics of the...
- The activities (online/person), allow me to develop my knowledge and skills related to the topics of the BIP.



When asked about the about the **Blended Intensive Program's content and activities**, overall, participants expressed a positive view of the BIP content and activities, with consistently positive self-assessments across all reported learning outcomes, with relatively little variation among the items

Results

Student feedback about the Blended Intensive Program's support and collaboration

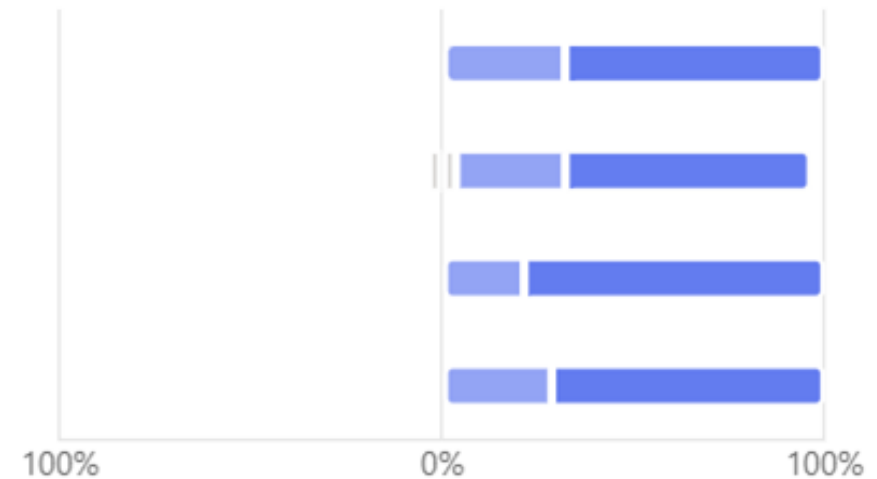
● Strongly Disagree ● Disagree ● Neither agree nor disagree ● Agree ● Strongly Agree

I was well informed about the program structure, contents and activities

Could find the relevant documents used during the program in the program online drive

The teachers involved in the online/presential sessions lectures supported the students learning process

The teachers involved in the online/presential activities (Workshops and students presentations) supported the students'...

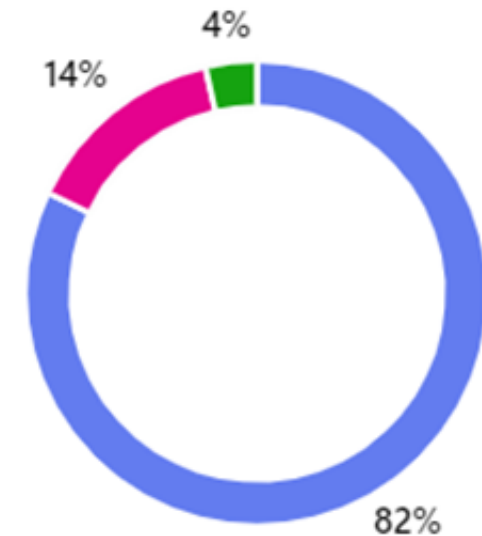


Regarding the student **feedback about the Blended Intensive Program's support and collaboration**, responses show consistently positive perceptions of the program's preparation and support. All four statements received a very high level of agreement. No respondents selected "Disagree" or "Strongly Disagree" for any aspect, indicating that students found the preparation and facilitation broadly satisfactory. There is only minor room for improvement regarding the accessibility of program materials.

Results

Student feedback about the quality of this Blended Intensive Program in general

| | |
|-------------|----|
| ● Very good | 23 |
| ● Good | 4 |
| ● Fair | 0 |
| ● Poor | 0 |
| ● Very poor | 1 |

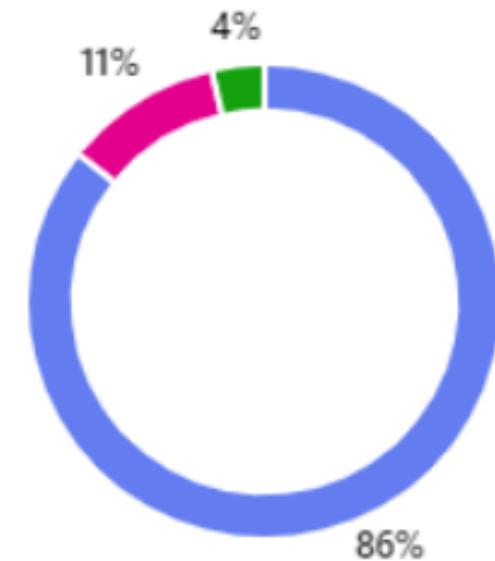


Most students provided positive **feedback regarding the quality of the Blended Intensive Programme**. Specifically, 82% of respondents rated it as "Very Good," and an additional 14% selected "Good." Only one participant (4%) rated the program as "Very Poor," while no individuals chose the "Fair" or "Poor" categories. These results indicate generally favourable perceptions of the program, with only one outlier expressing significant dissatisfaction.

Results

Student recommendation of the Blended Intensive Program

| | |
|------------------------------|----|
| ● Strongly Agree | 24 |
| ● Agree | 3 |
| ● Neither agree nor disagree | 0 |
| ● Disagree | 0 |
| ● Strongly disagree | 1 |



Finally, most respondents showed a strong willingness to **recommend the Blended Intensive Programme**. Specifically, 86% selected “Strongly Agree,” while an additional 11% chose “Agree.” Only one student (4%) indicated “Strongly Disagree,” and no neutral or intermediate negative responses were recorded. This indicates a generally positive view of the programme, with nearly unanimous recommendations, aside from a single opposing opinion.

Conclusions

- An evaluation of this multinational Blended Intensive Programme on Artificial Intelligence for physiotherapy students showed that the respondents (93.3 %) self-reported increased knowledge and confidence, with 96–100 % agreement across all learning-outcome statements and uniformly positive views of organisation and support.
- Overall, 82 % rated the programme “Very Good” and 97 % would recommend it, highlighting the importance of short, blended mobility schemes for rapidly building interdisciplinary AI competence in healthcare education.
- However, the small, single-cohort sample and reliance on self-reported data call for larger, objective, longitudinal studies before drawing firm conclusions.

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Acknowledgements



António Alves Lopes
Escola Superior de Saúde do Alcoitão
antonio.alopes@essa.scml.pt