

VIRTUAL INTERNATIONALIZATION IN PHYSIOTHERAPY EDUCATION: A THREE-YEAR EXPERIENCE

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Abstract

Introduction and Objectives: The internationalization initiative at Escola Superior de Saúde do Alcoitão (ESSAlcoitão) represents a strategic approach to embedding a global perspective within its physiotherapy education program. Recognizing the increasing interconnectedness of healthcare systems and the importance of cross-cultural competence in healthcare professionals, this initiative aims to equip students with the skills and understanding necessary for functioning effectively in diverse international settings. A range of activities have been introduced throughout the student's academic journey and are designed to progressively expose students to an international context.

Materials and Methods: From 2020 to 2023, ESSAlcoitão collaborated with various institutions across Europe, Africa, and South America to implement a project for first-year Physiotherapy Course students. This two-month project required students to engage in at least two online meetings with an international partner, discussing topics relevant to Physiotherapy learning and practice. Following these discussions, students were tasked with submitting individual reflections on key insights gained from this collaborative process. At each participating institution, a designated teacher was responsible for guiding, supporting, and evaluating these reflections. At the conclusion of the project, an online questionnaire was used to assess participant satisfaction and the impact of the activities. This questionnaire covered various aspects of the activity, such as student preparation, teacher support, implementation, and overall impressions.

Results: The questionnaire received an 83% response rate (n=151). According to the responses, most students were satisfied with the preparation for the activity and found the support materials adequate. In terms of international peer interaction, they reported easy communication and agreed that the activity achieved its intended objectives. Regarding the activity's impact, students felt it enhanced their understanding of the international aspects of physiotherapy education and practice. This highlights the importance of continuing to incorporate such activities into the curriculum.

Conclusions: The three-year experience of virtual internationalization in physiotherapy education at Escola Superior de Saúde do Alcoitão (ESSAlcoitão) has showed promising results. These outcomes indicate a growing interest in incorporating international perspectives into the curriculum. The findings suggest that such activities are crucial for providing students with early exposure to international contexts, potentially fostering the development of skills necessary for a proactive and global professional role.

Keywords: Virtual, Internationalization, Physiotherapy Students.

1 INTRODUCTION

The growing interconnectedness of the world has resulted in blended spaces across various sectors. Exchange programs have facilitated collaboration between Higher Education Institutions (HEIs), with technology playing a supportive role[1]. This trend has seen a rise in students and professionals working with international partners, including colleagues and clients. As a result, internationalization and globalization are influencing the job market and professional environments[2].

In response, educational institutions are incorporating international and intercultural competencies into their curricula to equip individuals for the demands of international work environments. For instance, some physiotherapy education programs include international experiences in their curriculum, which may also meet clinical education requirements. These international experiences in education aim to provide students with a broader understanding of different health practices and cultural perspectives. This exposure is intended to prepare graduates for working in globally connected environments, potentially enhancing healthcare quality, and fostering cross-cultural understanding within their professions.

Different physiotherapy education programs incorporate an international component into their curriculum. This aspect is designed to provide students with exposure to global health practices and may also contribute to meeting their clinical education requirements[3] [4].

At the Escola Superior de Saúde do Alcoitão/ Alcoitão School of Health Sciences (ESSAlcoitão), an internationalization project is implemented, featuring a series of activities integrated into the students' academic journey. These activities are structured to gradually introduce students to the international context.

A particular focus of one of these activities is the development of several competencies related to internationalization, including[5]: Language Proficiency: It is essential for physiotherapists to achieve proficiency in multiple languages. This skill is crucial for effective communication with clients and colleagues in international settings and for understanding and engaging with scientific literature; Cross-Cultural Communication Skills: To be able to deliver personalized healthcare to a diverse global population, physiotherapists need to develop the ability to relate to individuals from various ethnic, national, cultural, social, and religious backgrounds. This requires an understanding and awareness of their own cultural values and behaviours. Finally, understanding Global Health and Physiotherapy Trends, where students are expected to gain awareness of health and physiotherapy developments at an international level.

This knowledge is important for effective participation in international collaborations and understanding the health context in different countries. These components collectively aim to equip physiotherapy students with the skills and knowledge necessary to navigate and contribute effectively to the evolving field of global healthcare[6].

2 METHODOLOGY

Between 2020 and 2023, Escola Superior de Saúde do Alcoitão/ Alcoitão School of Health Sciences (ESSAlcoitão), participate in a collaborative project with various institutions across Europe, Africa, and South America, focused in first-year students from Physiotherapy bachelor's degree. This two-month project involved students participating in a minimum of two online meetings with international partners to discuss physiotherapy-related topics (Figure 1). These discussions encompassed three main dimensions:

- Personal Dimension: Students exchanged personal information including family background, hobbies, living circumstances, and employment status.
- Educational Dimension: Focused on various aspects of physiotherapy education. Topics included course duration, first-year curriculum, class formats, distribution of learning responsibilities, assessment methods, student activities and tasks, involvement in mentoring or tutoring, research activities, motivations for choosing the profession, preferences for professional placements, and future areas of interest.
- Professional Dimension: In this segment, students discussed the definition and scope of physiotherapy in their respective countries, potential future developments in the field, professional autonomy, physiotherapist-to-population ratios, and pathways to entering the profession.

Following these interactions, the students were required to submit an individual reflective task, analysing the key insights gained from these discussions. This analysis was structured around the personal, educational, and professional dimensions of the meetings.

In the personal dimension, students described their peers based on the provided interview script, focusing on aspects such as academic year, family context, leisure activities, and living situation, with the option to include additional information. The educational dimension involved presenting information gathered from the partner institution's students, encompassing the discussed topics. In the professional dimension, students analysed information about physiotherapy in the partner's country, including its definition, scope, perceived future trends, level of professional autonomy, physiotherapist population ratios, and access to the profession.

In the critical analysis section, students compared the educational and professional aspects of physiotherapy with those of their international counterparts. They reflected on how this activity contributed to their development as students and broadened their understanding of physiotherapy education and practice at both national and international levels.

The conclusion of this reflective exercise required students to summarize their experiences and observations, outlining both the positive and negative aspects of their participation in the project. They also proposed ideas for future activities and suggested improvements. A designated teacher at each participating institution was responsible for guiding, supporting, and evaluating the students' reflections.

At the project's end, an online questionnaire was administered to evaluate participant satisfaction and the overall impact of these activities. This survey addressed various elements, including student preparation, teacher support, implementation, and overall impressions.

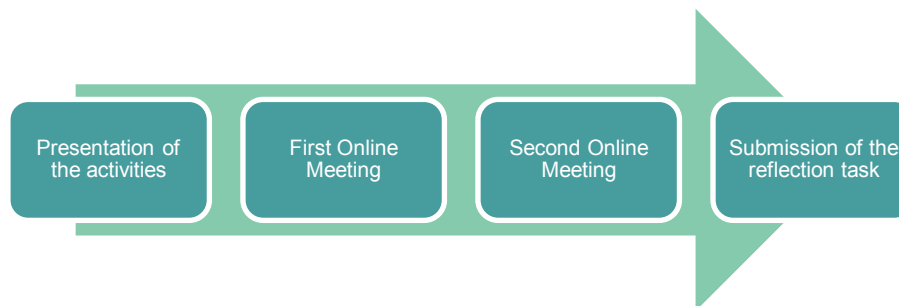
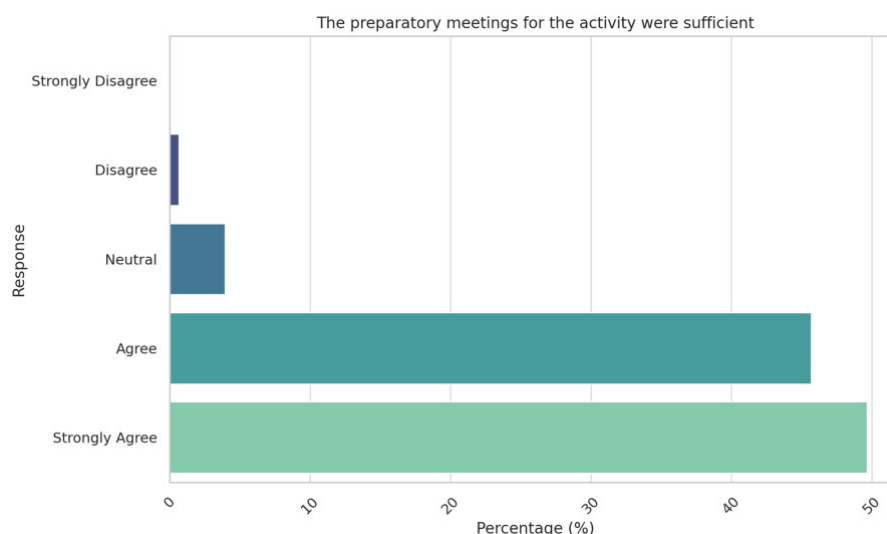


Figure 1. Project implementation

3 RESULTS

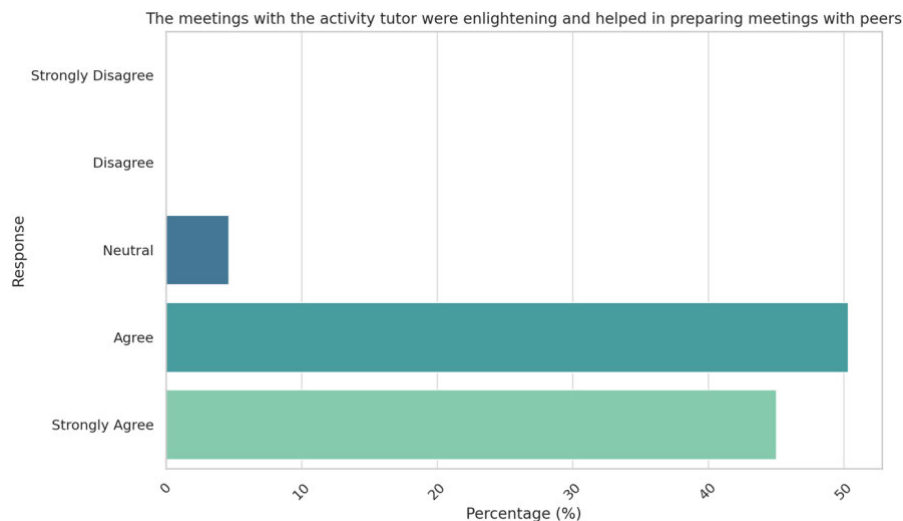
This section focuses on describing the responses from the online anonymous questionnaire, which was conducted in end to evaluate the impact on first-year students at ESSAlcoitão regarding this specific project. The survey covered various aspects, such as activity preparation, performance, evaluation, and overall impression. We present an analysis of the data, which includes a range of evaluative criteria from different academic years involved. The outcomes are based on quantitative data and provide a basis for comprehending the project's impact and effectiveness as perceived by the students. With an 83% response rate, totalling 151 responses, the data represents a significant portion of the student enrolled, offering a comprehensive view of the project's reception and effectiveness.

In the first chart (Graph 1) is represented the response distribution for the statement "The preparatory meetings for the activity were sufficient." Here, we observe a positive reception, with a combined 95.36% of respondents expressing agreement: 49.67% strongly agree and 45.70% agree. This indicates a high level of satisfaction with the adequacy of the preparatory meetings. A small percentage, 3.97%, chose a neutral, while a very minor 0.66% disagreed, and none strongly disagreed. The absence of strong disagreement and the low level of disagreement suggest that the preparatory meetings generally met the expectations of the participants. The overwhelming majority expressing agreement or strong agreement highlights the effectiveness and adequacy of these meetings in the context of the program.



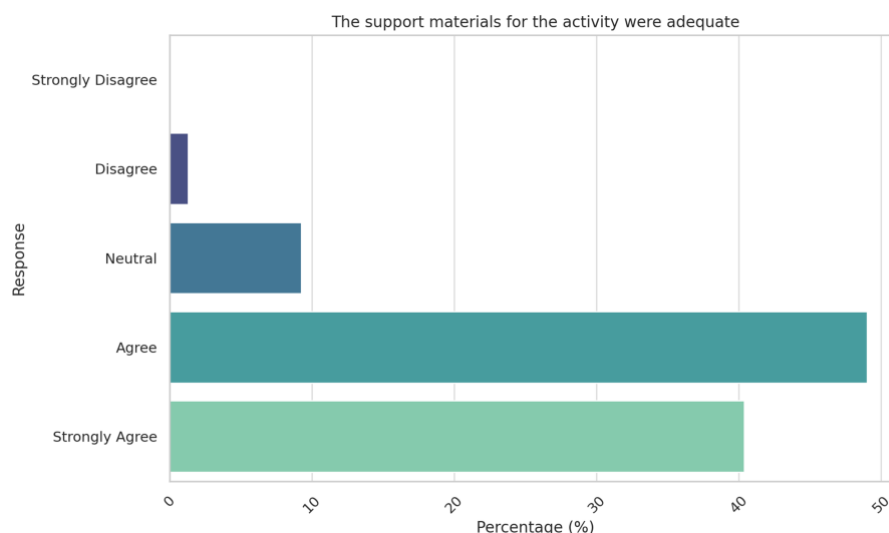
Graphic 1 – Preparatory meetings

The next chart (Graph 2) illustrates the response to the statement "The meetings with the activity tutor were enlightening and helped in preparing meetings with peers." A 95.36% of respondents expressed a positive view, with 45.03% strongly agreeing and 50.33% agreeing, highlighting a significant level of satisfaction with the meetings. Only a minor 4.64% remained neutral, neither agreeing nor disagreeing, which points to some reservations but no strong negative opinions. There were no responses indicating disagreement or strong disagreement, underscoring the absence of significant dissatisfaction among the participants, reinforcing the effectiveness and positive impact of the tutor-led meetings in the project.



Graphic 2 – Tutor support

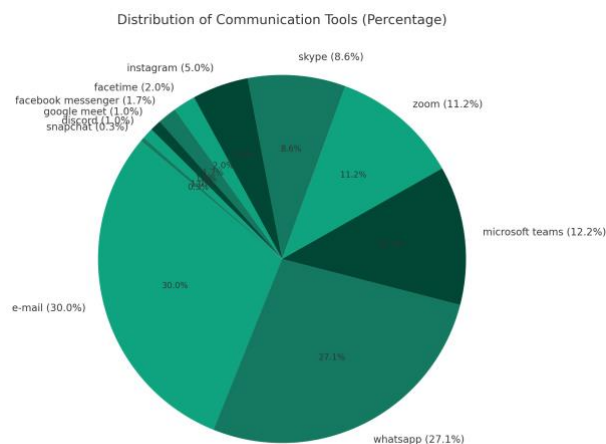
In relation to the statement "The support materials for the activity were adequate." The distribution reflects a generally positive view, with 49.01% of respondents agreeing and 40.40% strongly agreeing, cumulatively accounting for 89.40% of the responses. This suggests that most participants found the support materials to be satisfactory. However, a 9.27% of the respondents remained neutral, indicating some level of indifference regarding the adequacy of the materials. A smaller segment, 1.32%, disagreed, while none strongly disagreed. The lack of strong disagreement, combined with the low level of disagreement, points towards a consensus on the adequacy of the support materials, despite some concerns expressed by a minority of the participants (Graph 3).



Graphic 3 – Support materials

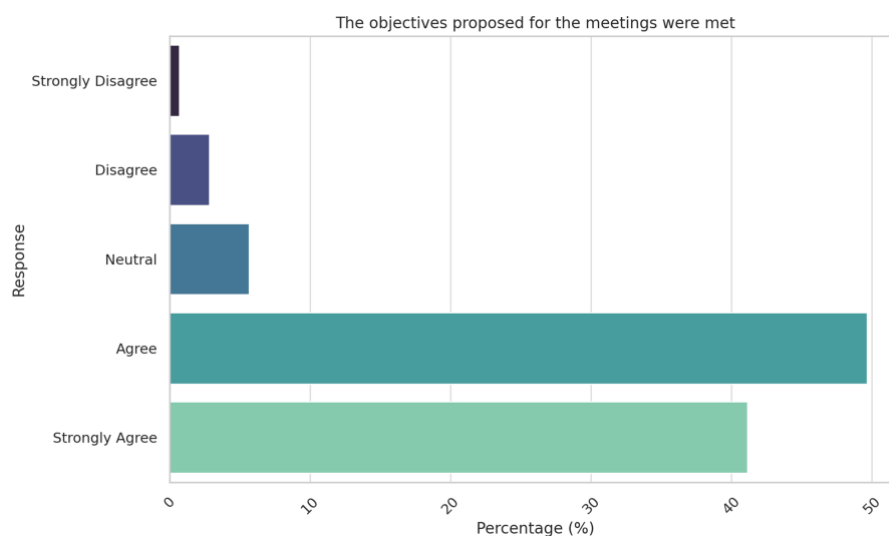
In relation to the communication tools used by students during the project (Graph 4), E-mail stands out as the most preferred tool, constituting 30% of the communication, which underscores its still enduring significance in academic communication. WhatsApp follows closely, representing 27% of usage,

highlighting its popularity as a flexible communication platform. Microsoft Teams and zoom also play significant roles, accounting for 12% and 11% respectively, demonstrating their importance in facilitating virtual interactions and collaborations. Other tools like Skype (8%), Instagram (5%), and Facetime (2%) show a moderate to minimal presence, reflecting a range of communication preferences among participants. This distribution underscores a diverse communication landscape within the program, where various tools cater to different needs, blending traditional methods with modern digital technologies. The percentages illustrate how each tool contributes to the overall communication strategy in this international project.



Graphic 4 – Communication tools

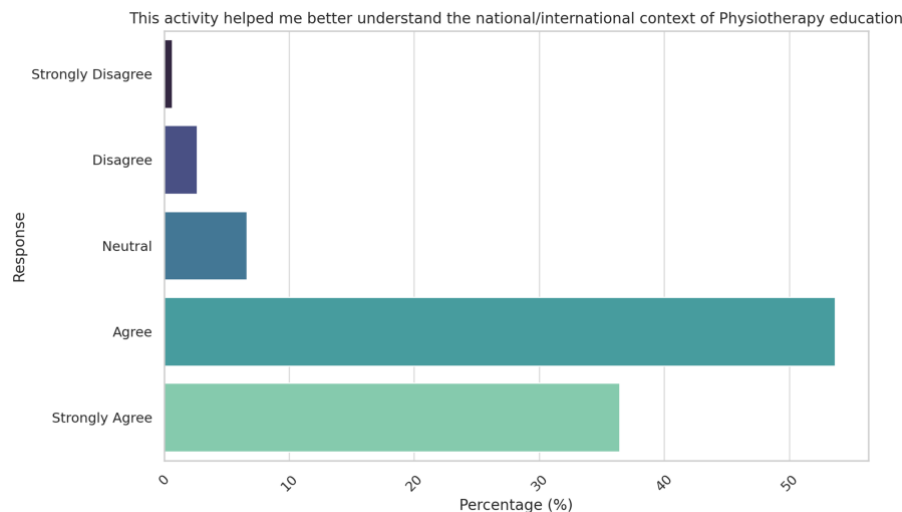
In the distribution of responses for the statement "The objectives proposed for the meetings were met." The data reflects a largely positive view, with 41.13% of participants 'Strongly Agreeing' and 49.65% 'Agreeing', amounting to 90.78% of the responses collectively. This majority indicates that most participants felt the meetings successfully achieved their intended objectives. In contrast, a minor 5.67% chose a neutral position, suggesting some indecisiveness regarding the achievement of the objectives. A combined 3.55% of participants disagreed with the statement (2.84% 'Disagree' and 0.71% 'Strongly Disagree'), highlighting a small segment of the participants who perceived the objectives as not fully met. Overall, the distribution strongly suggests that most participants were satisfied with how the meetings met their proposed objectives (Graph 5).



Graphic 5 – Project objectives

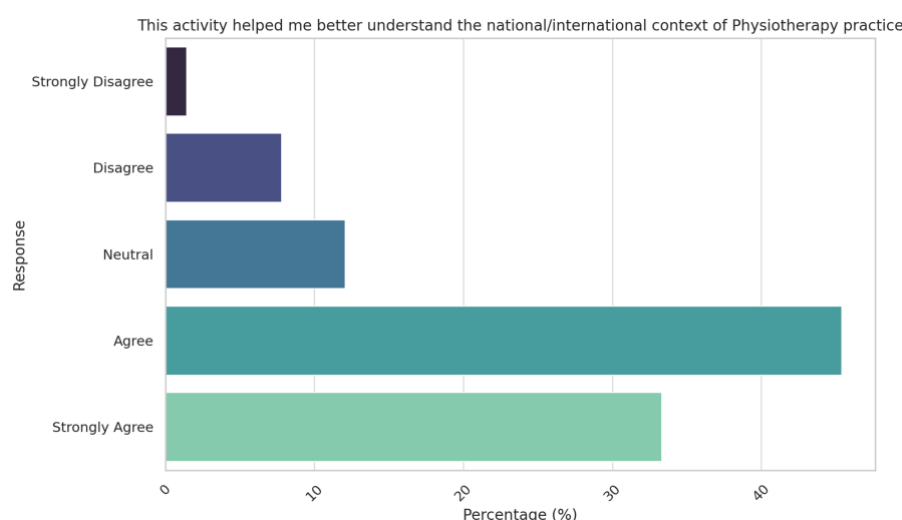
The next chart (Graph 6), referring to "This activity helped me better understand the national/international context of Physiotherapy education." Most participants positively assessed the

activity's impact on their understanding, with 36.42% 'Strongly Agreeing' and 53.64% 'Agreeing', collectively making up 90.07% of the responses. A small portion, 6.62%, remained neutral, and 3.31% of respondents expressed disagreement (2.65% 'Disagree' and 0.66% 'Strongly Disagree'), indicating a minority of participants who did not perceive the activity as beneficial in understanding the broader context of physiotherapy education. Overall, the distribution suggests a strong positive reception of the activity in contributing to participants' understanding of the national and international aspects of physiotherapy education, with a majority finding it helpful.



Graphic 6 – Context of Physiotherapy education

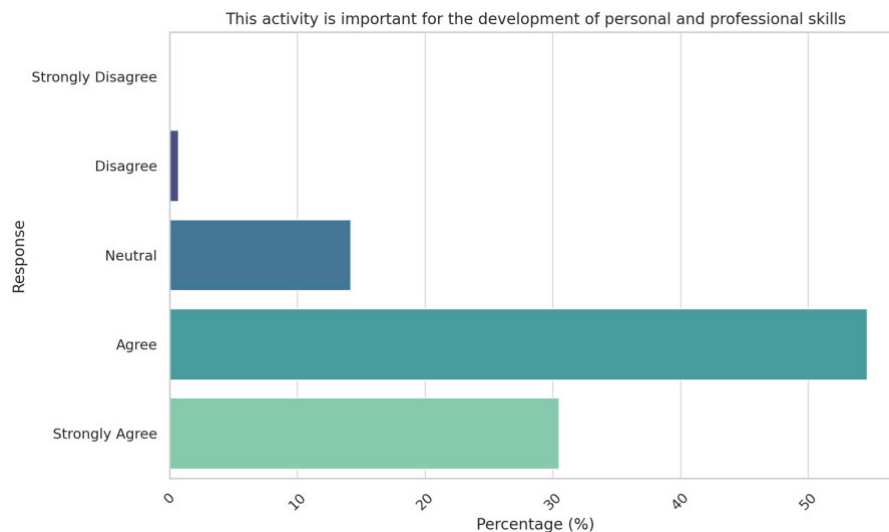
In the statement "This activity helped me better understand the national/international context of Physiotherapy practice." (Graph 7), the responses indicate a generally positive reception, with 33.33% of participants 'Strongly Agreeing' and 45.39% 'Agreeing' with the statement, cumulatively accounting for about 78.72% of the responses. This suggests that most of the participants found the activity effective in enhancing their understanding of the physiotherapy practice in various contexts. However, a 12.06% remained neutral, and 7.80% 'Disagreed' and 1.42% 'Strongly Disagreed', indicating a minority of participants who did not find the activity as helpful in understanding the national or international context of physiotherapy practice. The distribution highlights the activity's overall positive impact on participants' understanding, while also pointing to the existence of diverse opinions and experiences among the participants.



Graphic 7 – Context of Physiotherapy practice

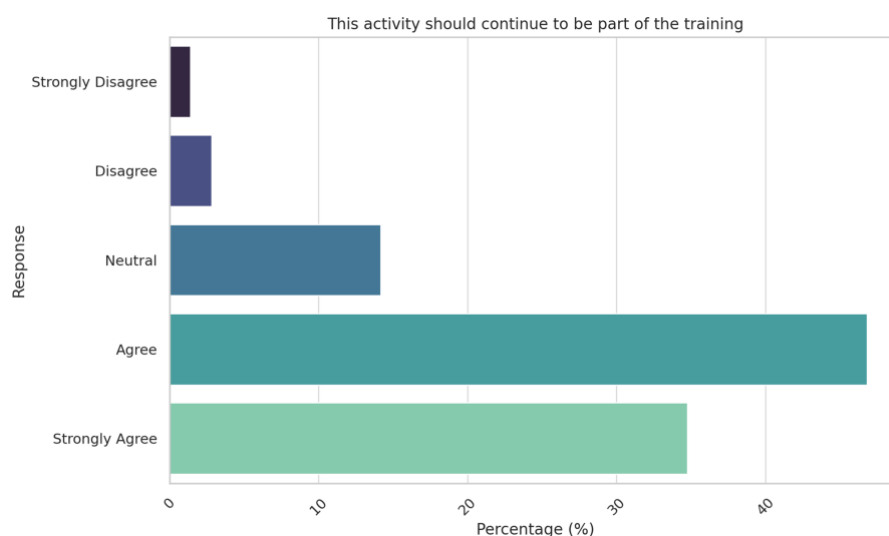
The following chart (Graph 8), illustrates the responses to the statement "This activity is important for the development of personal and professional skills." Most participants view the activity positively in

terms of skill development: 30.50% 'Strongly Agree' and 54.61% 'Agree', together making up 85.11% of the responses. This indicates a strong consensus on the activity's value in enhancing both personal and professional competencies. On the other hand, 14.18% of respondents remained neutral, and 0.71% disagreed, while none strongly disagreed. The absence of strong disagreement and the minimal disagreement highlight the general acceptance of the activity's importance. The overall distribution underscores the perceived importance of the activity in contributing to skill development, with a broad agreement among participants, with some reservations.



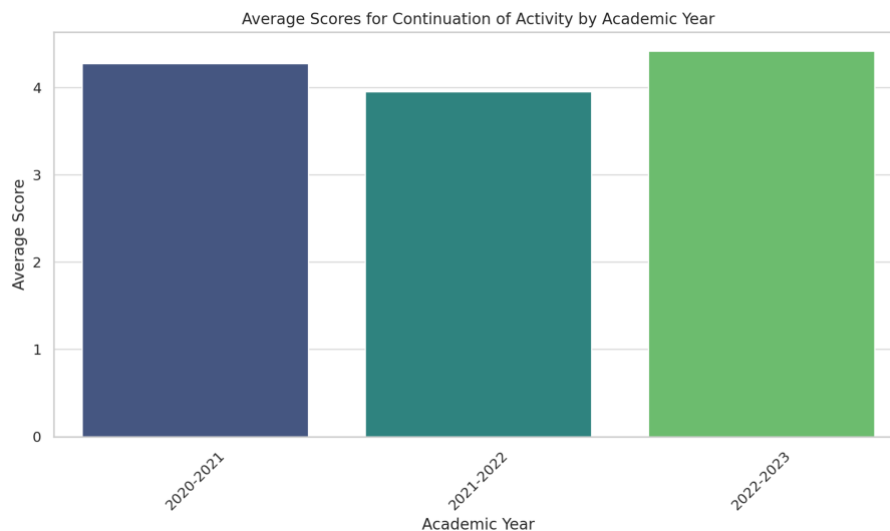
Graphic 8 – Development of personal and professional skills

The next chart (Graph 9), displays the responses to the statement "This activity should continue to be part of the training." A significant majority of the participants support the continuation of the activity: 34.75% 'Strongly Agree' and 46.81% 'Agree', cumulatively representing 81.56% of the responses. This strong endorsement suggests that most participants value the activity and believe in its relevance and contribution to the training program. However, a 14.18% of respondents chose a neutral position, and 4.26% of participants expressed disagreement, with 1.42% strongly disagreeing and 2.84% disagreeing. This minority viewpoint suggests that while there is broad support for the activity, there are differing opinions about its necessity or effectiveness in the training context. Overall, the distribution indicates a consensus on the value and importance of the activity in the training program, with a predominant view supporting its continuation.



Graphic 9 – Continuation of this activity

Finally, the last chart (Graph 10), represents the average scores, for the continuation of the activity across three academic years. In the academic year 2022-2023, the activity received the highest average score, indicating a strong endorsement from participants for its continuation in the training program. The year 2020-2021 also saw a high level of support, reflecting a positive perception of the activity during that period. However, the academic year 2021-2022 witnessed a slight dip in the average score, suggesting a change in participants' opinions or experiences with the activity in that particular year. This variation in scores across different academic years highlights the evolving perception of the activity's relevance and effectiveness within the training program. It suggests that while the activity generally receives strong support, there might be fluctuating factors influencing participants' opinions year on year.



Graphic 10 – Continuation of this activity by academic year

4 CONCLUSIONS

This study has provided insights into the effectiveness and reception of a virtual internationalization initiative at the Physiotherapy education program of Escola Superior de Saúde do Alcoitão (ESSAlcoitão), identifying its strengths and areas for future improvement.

Regarding the main results, the preparatory meetings for activities generally received positive feedback, demonstrating their adequacy and effectiveness in laying the groundwork for subsequent sessions. However, a slight decline in positive responses, compared to other program elements, indicates a need for more comprehensive or varied preparatory methods. This might include the integration of diverse strategies or interactive components to enhance participant preparedness. The tutor-led meetings were well-received, with participants appreciating their clarity and usefulness. This high satisfaction level emphasizes the sessions' effectiveness in offering essential guidance. It highlights the tutor's critical role in the program's success, suggesting this should remain a central element in its structure. Although most participants were content with the support materials, like manuals and guides, the presence of some neutral responses suggests there are areas for improvement. Addressing potential gaps in these materials through continuous review and refinement is essential. Future versions of the program could benefit from more customized and diverse materials, catering to a range of learning styles and participant needs.

The utilization of various communication tools, from email to platforms like WhatsApp and Microsoft Teams, mirrors the dynamic nature of communication in educational environments. This approach not only meets different participant preferences but also equips them for the varied communication demands of professional settings. The program's adaptability in this aspect is important and should be preserved as a key characteristic.

In terms of achieving session objectives, although there is general agreement on the program's effectiveness, the existence of a minority with neutral opinions suggests a need to better align objectives with participant expectations. This finding indicates that while the program is overall effective, there is scope for enhancing how goals are communicated and to all participants. The program's contribution to deepening participants' understanding of Physiotherapy education and practice in both national and

international contexts and fostering personal and professional skills development has been well acknowledged. Nonetheless, variations in average scores across different academic years point to changing perceptions, possibly due to shifts in participant groups, implementation methods, or external influences. This variability highlights the need for continuous program adaptation to retain its relevance and effectiveness.

In summary, the program establishes a solid base in facilitating the understanding of the Physiotherapy field, developing key skills, and meeting educational objectives. The presence of minor perception variations and some neutral responses underlines the necessity for ongoing evaluation and improvement. To sustain and augment its effectiveness, the program is advised to keep adapting and evolving, integrating feedback for continuous enhancement, and staying aligned with the latest educational best practices.

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