

DESIGN THINKING IN DEVELOPING THE INTERCULTURAL COMPETENCE OF STUDENTS AS AN ELEMENT OF THE UNIVERSITY'S SOCIAL IMPACT

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Purpose: This article aims to examine the potential of the Design Thinking (DT) methodology in educating students about intercultural competence, which is considered an essential element of the university's social role.

Design/methodology/approach: To achieve this goal, the author based her considerations on analysing the relevant literature (including international research on DT and intercultural competence) and a case study of DT implementation within the Intercultural Business Communication module at the Wrocław University of Economics. As part of the case study, the author analysed students' experiences, reflections, and conclusions from working in intercultural teams and addressing the challenge of intercultural collaboration.

Findings: The research findings indicate that the use of DT supports the development of key elements of intercultural competence, including empathy, openness, cultural self-awareness, cognitive flexibility, effective communication, and teamwork. Students recognised the real challenges of working in an international environment (language differences, communication styles, decision-making, and building trust). They indicated that the DT process helped them better understand perspectives and develop practical collaboration skills.

Social implications: The article highlights the role of universities as institutions supporting intercultural dialogue and inclusiveness. Using DT in teaching can better prepare students for the workplace, promote diversity, and support the development of social and cultural competencies essential for future leaders.

Originality/value: The article provides original value by combining two areas: Design Thinking and the development of intercultural competencies, which have rarely been analysed together in the literature. The case study demonstrates the practical application of DT in teaching and suggests directions for further research and the potential for adapting this methodology in higher education.

Keywords: intercultural competence, Design Thinking, universities.

Category of the paper: Research paper.

1. Introduction

In today's rapidly changing world, young people leaving university should be equipped with a range of skills and competencies to enable them to function effectively in the labour market and facilitate collaboration with partners. One of the most critical competencies currently essential for effective functioning is intercultural competence.

Intercultural competence can be described as a range of competencies that enable efficient operation in a multicultural or intercultural environment. They facilitate understanding people from other cultures, building lasting and satisfying relationships, and effectively managing operations. Intercultural competence seems particularly important in managing an international team or negotiating, but it is also crucial in other areas, such as teamwork, leadership, and delegating employees abroad.

The role of intercultural competence in higher education is also significant. Internationalisation is a priority for most universities, and students experience international environments and participate in international exchange programs. Universities accept foreigners for study. Visiting professors are now the norm, rather than the exception, in teaching. The need to build intercultural competence in higher education seems downright essential. Moreover, universities are now perceived not only as teaching and research centres but also as key actors in shaping social impact, meaning that their role is focused on education and science and active engagement in solving social, economic, and cultural problems. Universities play a crucial role in shaping the social awareness of students and future leaders, fostering intercultural dialogue, promoting diversity and inclusivity, and equipping students with the tools to influence social and economic processes.

There are many tools and methods for building intercultural competence. Design Thinking (DT) can be very helpful in this regard. DT is an iterative process based on five phases (empathise, define, ideate, prototype, test) that can be used to build intercultural competence. The literature emphasises that DT develops empathy, collaboration, and creative problem-solving (Brown, 2009; Razzouk, Shute, 2012), which constitute essential elements of intercultural competence.

This article aims to discuss the potential of Design Thinking in building intercultural competence in students as a component of the social impact of higher education institutions. The literature contains numerous studies on building intercultural competence, including in the context of higher education institutions, as well as on DT and its use in education. However, few studies combine these two areas, demonstrating the potential of DT in building intercultural competence.

To achieve her goals, the author based her discussion on analysing the relevant literature, drawing primarily on foreign sources, including scientific articles, conference proceedings, and information on websites dedicated to DT and intercultural competence. The author utilised

Google Scholar and Science Direct to gather the literature. These sources allowed the author to define concepts related to culture and intercultural competence, and to identify the most critical models. She also characterised the DT process and identified connections between its individual stages and the development of intercultural competence. Additionally, in the final section, the author utilised a case study of the use of DT methodology on the Intercultural Business Communication module. All these elements allowed to identify the main conclusions, limitations, and opportunities for future research in this area and for using this methodology to build intercultural competence.

2. Theoretical framework of the development of intercultural competence

Finding a single definition of culture that captures its essence is difficult in the literature. According to Kłoskowska (1980), culture is shaped by generations and the external world of things and thoughts that influences people. It is not the creation of a single human being, but rather a product of coexistence and cooperation, developing and enriching through generations. Hofstede et al. (2010) view culture as the collective programming of the mind that distinguishes members of one group from another.

Culture shapes human values, attitudes, behaviours, and perceptions; therefore, collaborating with people from different cultural backgrounds can lead to misperceptions, problems with cooperation, and a lack of mutual understanding at various levels. Therefore, developing cultural competence is crucial for effective functioning in an international environment.

As with culture, there is no consensus on what constitutes intercultural competence. According to Taylor (1994), intercultural competence is a learning process in which a person from another culture develops the ability to adapt, change their perspective, understand, and meet the expectations and requirements of the host culture. Johnson, Lenartowicz, and Apud (2006) define intercultural competence as an individual's ability to use knowledge, skills, and personal characteristics to effectively collaborate with people from different cultural backgrounds, both domestically and internationally. According to Fantini and Tirmizi (2006), intercultural competence is a set of skills necessary for effective and appropriate use in contacts with others who differ linguistically and culturally. The set of skills comprises several components, including communication, knowledge, cooperation, relationships, attitudes, awareness, and knowledge of the language and the country.

Kim (2002), analysing intercultural communication competence, placed adaptability at its centre and emphasised the individual's ability to suspend or modify some old cultural customs and learn and adapt some new ones, as well as creatively find ways to cope with ignorance of cultural differences, intergroup attitudes, and the accompanying stress. Deardorff (2009),

in a study conducted in the United States with the participation of other leading researchers, developed a widely accepted definition stating that intercultural competence is adequate, appropriate behaviour and communication in intercultural situations. Schwarzenenthal et al. (2019) point out that intercultural competence is not limited to intergroup attitudes but also encompasses awareness and knowledge of diverse worldviews and the ability to demonstrate behavioural flexibility in the face of diverse cultural contexts. Based on an extensive literature review and their own research, Guillén-Yparrea & Ramírez-Montoya (2020, 2023) concluded that intercultural competence enables an individual to possess adequate knowledge and understanding of different cultures, as well as to interact and relate effectively in diverse cultural environments.

Along with defining the concept of intercultural competence, many researchers have developed their models (Bolten, 2006; Bennet, 1993; Brinkmann, van Weerdenburg, 2014; Byram, 1997; Deardorff, 2009; AAC&U, 2009), which also exhibit specific differences. Three selected models will be discussed below.

Byram's Model of Intercultural Communicative Competence (Byram et al., 2002) presents a comprehensive framework for language education, which, in addition to language knowledge, also requires teaching intercultural competence, as language proficiency alone does not automatically translate into intercultural competence (Alred et al., 2003, 2006; Byram, 1997; Deardorff, 2006). Byram conceptualises intercultural competence as a complex whole, encompassing knowledge, skills, attitudes, and critical awareness (Xiaoyan et al., 2024). In his approach, the so-called *savoirs*—five interrelated components – are crucial (Deardorff, Jones, 2012):

- Knowledge (*Savoir*) – knowledge of aspects of culture, beliefs, and points of reference that are familiar to the local community.
- Attitudes (*Savoir être*) – understanding and coping with cultural differences with curiosity and openness, without ethnocentrism.
- The ability to discover and interact (*Savoir apprendre*) – interpreting how others live, think, feel, and communicate.
- The ability to interpret and relate (*Savoir comprendre*) – the ability to gain insight into cultural meanings, beliefs, and practices in comparison to one's own culture.
- The ability to engage (*Savoir s'engager*) – making informed, critical assessments of aspects of one's own and other cultures.

One of the most recognised models in the scientific literature is the model developed by Deardorf (2009), resulting from a multi-stage research process. It is a processual model, meaning that intercultural competence is not a final state but a dynamic, continuous learning and development process. The author begins the acquiring competencies process at the individual level (attitudes, knowledge, and skills) and reaches the interactive level (internal and external outcomes). Attitudes include respect, openness, curiosity, and discovery; knowledge and skills encompass cultural self-awareness, deep cultural understanding, and sociolinguistic

awareness; skills, in turn, include listening, observing, evaluating, analysing, interpreting, and relating. These elements lead to internal outcomes, such as adaptability, flexibility, an ethnorelative perspective, and empathy. The external outcomes, in turn, include effective and appropriate communication and behaviour in intercultural situations. The degree of intercultural competence depends on acquired attitudes, knowledge/understanding, and skills (Głazewska, 2020).

The Association of American Colleges and Universities (AAC&U, 2009; Hantsiuk et al., 2021), which represents over one hundred colleges and universities in the United States, has proposed an Intercultural Knowledge and Competence VALUE Rubric, which identifies the following six key components of cross-cultural competence:

- an attitude of openness, demonstrated by a non-judgmental approach when interacting with people from other cultures,
- an attitude of curiosity, leading to asking sophisticated questions about other cultures and formulating answers to those questions that represent diverse cultural perspectives,
- cultural self-awareness, meaning understanding one's own cultural rules and biases,
- knowledge of the framework of a cultural worldview, demonstrating an awareness of the complexities of elements essential to members of another culture,
- nonverbal and verbal communication skills help one understand cultural differences in verbal and nonverbal communication and effectively negotiate these differences,
- empathy skills are related to the ability to analyse intercultural experiences both from one's own perspective and from the perspective of several other worldviews, and to act respectfully, taking into account the feelings of another cultural group.

Most definitions and models emphasise the cognitive, affective, and behavioural perspectives necessary for interacting with people from other cultures. Cognitive skills refer to understanding the situation and environment of intercultural interactions and applying intercultural awareness, which is also influenced by understanding one's own culture. Knowledge focuses on general aspects of culture, knowledge of the country, its culture, language, standards, and behaviours. Affective skills are linked to the emotions accompanying intercultural interactions, such as respect, tolerance, openness to new behaviours, openness to differences and diversity, the ability to change views and perspectives, and self-reflection. The behavioural perspective focuses on how to act effectively in intercultural situations, behave appropriately in given circumstances, resolve conflict situations, cope with culture shock, and so on.

3. Design Thinking in the educational process

To identify the importance of DT in building intercultural competence, it is necessary to define the concept. Design Thinking is a creative problem-solving method described as a human-centred methodology that supports and drives practical innovation (Bauer et al., 2008). Design Thinking emphasises observation, collaboration, rapid learning, idea visualisation, rapid concept prototyping, and simultaneous business analysis, ultimately influencing innovation (Lokwood, 2009). The DT process's primary goal is to create commercially viable, technically feasible solutions and respond to real user needs. The essence of this process is creating and implementing innovative solutions, which encompass new products, technologies, services, strategies, methods, business models, and educational programs. Due to its universal nature, Design Thinking has a broad application, wherever we deal with so-called "wicked problems", or problems that don't have a single, obvious solution (Derlukiewicz, Koziółek, 2008).

An interdisciplinary team is one of the key elements of this process. Its members are selected from diverse backgrounds. These should include individuals with diverse experiences, skills, and knowledge. Diversity and diverse perspectives on the problem create a vast space for developing solutions that are ultimately innovative and more practical. Design Thinking practitioners should focus on human needs, demonstrate empathy, gather user feedback and incorporate it into their projects, make experimentation an integral part of the design process, and collaborate with people from diverse backgrounds and respect their perspectives. Tackling challenging problems, curiosity, and optimism are essential. The main attributes of design thinking are (Baeck, Gremett, 2011):

- Ambiguity – accepting unclear situations and accepting that answers may be unknown or not obvious.
- Collaborative – collaboration with partners from different fields and disciplines.
- Constructive – involves building on the ideas of others, already existing ones, not negating old ideas, but rather building on them and improving them.
- Curiosity – naturally asking questions, being interested in things that are not understood, or perceiving things differently.
- Empathy – seeing and understanding things from the point of view of users/others.
- Holistic – a broad view of the problem, looking at it from multiple perspectives.
- Iterative – a cyclical process in which improvements are introduced to the solution or idea regardless of the phase.
- Non-judgmental – the ability to create ideas without judging the creator of the concept or the idea itself.
- Open mindset – appreciating wild ideas, not jumping to conclusions, and adopting an experimental approach.

There are many Design Thinking models, each consisting of several stages, but the number of stages varies, typically ranging from 4 to 7. The Hasso Plattner Institute of Design at Stanford (the "d.school") developed the most well-known model. According to this model, the design thinking process consists of five stages (Hasso Plattner, n.d.):

- Empathise – empathy is a central element of the human-centred design process. The goal of empathy is to understand people in the context of the design challenge, to put ourselves "in the shoes" of the user by learning about their needs and problems, to understand potential frustrations and dissatisfaction, to understand how and why they act, how they think about the world, and what is important to them.
- Define – this stage aims to define the actual problem from the user's perspective. This stage serves to understand the collected information. Properly defining the problem significantly facilitates determining the direction of the solutions sought.
- Ideate – a mode of the design process that focuses on generating ideas. Ideation provides fuel and source material for building prototypes and delivering innovative solutions to users.
- Prototype – at this stage, a physical prototype is created. A physical representation of the created idea is made from simple, readily available materials. The goal of prototyping is to move to action as quickly as possible, providing the opportunity to visually present the idea to users and quickly gather feedback on the solution.
- Test – at this stage, the selected solution is tested in the user environment. Prototypes are tested with potential customers or end users to learn how the developed solution works. Testing is another opportunity to understand the user, where, after receiving feedback, it is essential to demonstrate empathy and objectively address user feedback.

Over the years, the approach to the DT process has evolved; the current approach emphasises greater fluctuation between stages, adaptation, reversion, iteration, and even skipping specific steps if the situation requires it. The DT process is no longer treated as "the process", a set of manuals. Instead, it is emphasised that institutions and educators should choose tools, methods, and ways of working for a specific context and goals (Carter, 2016).

Design Thinking has been successfully integrated into curricula across various disciplines, including creative modules and areas such as tourism, management, engineering, law, communication, and cultural studies. Implementing DT helps universities align with their social impact goals, including addressing real social problems reported by various institutions, NGOs, local governments, and local communities. Implemented solutions can help address the challenges faced by local users. The university becomes a partner in social development, serving as an institution that benefits the local community. Trust between the university and its social environment can increase, and knowledge is transferred to practice. Engagement in real-world problems enables students to acquire practical skills, enhance their social awareness, and demonstrate their ability to influence various aspects of life.

Research (Kijima et al., 2021; Clark et al., 2020; Lebid et al., 2020; Sandorova, 2019) indicates that Design Thinking facilitates the development of key competencies in students. Five groups of competencies backed by Design Thinking can be distinguished (Hantsiuk et al., 2021):

- creativity – the human-centred approach represented by Design Thinking allows students to present ideas and take creative risks boldly;
- problem-solving – prototyping develops students' ability to combine innovation with practical problem-solving;
- design competencies – implementing Design Thinking-based projects develops the ability to plan, collaborate, and implement innovations;
- communicative competence – supporting the development of oral and written communication, including foreign language learning;
- intercultural competence – supporting the development of empathy, collaboration skills, and a creative approach to problem-solving.

Considering the stages of DT and the components of intercultural competence, connections can be drawn between them (Hantsiuk et al., 2021; Deardorff, 2006; Schadewitz, 2009):

- Empathising – developing cultural empathy.
By collecting information through interviews and observations, students learn active listening, openness to other perspectives, and curiosity about different cultures, "getting into the shoes" of culturally diverse people. This stage corresponds to components of intercultural competence such as openness, curiosity, and a willingness to relativise one's own norms. It promotes the reduction of cognitive biases and develops the ability to recognise diverse perspectives.
- Defining – building cultural self-awareness and knowledge about other cultures.
Defining user needs requires understanding cultural assumptions and diverse cognitive frameworks. Framing a problem in a culturally sensitive way requires considering diverse perspectives, which exercises cognitive flexibility. Collaborative problem definition fosters diverse perspectives, facilitating the development of interpretive and relational competencies.
- Ideation – drawing on diverse perspectives, developing communication skills.
Collaborative ideation, drawing on diverse cultural experiences and perspectives, develops intercultural interaction skills, promotes inclusivity, and fosters diversity of perspectives as a source of innovation. This process requires communication and agreeing on ideas, which develops intercultural dialogue skills.
- Prototyping – developing empathy.
Building a prototype helps develop empathy by "getting in the shoes" of users, empathising with their needs, and responding to them. Developing a prototype requires collaborative action, collaboration, and compromise. It provides tangible evidence of

a shared solution, requiring participants to communicate and understand the perspectives of people with different cultural experiences.

- Testing – communication and reflexivity.

Testing solutions requires good communication, develops the ability to listen, accept criticism, adapt, and revise one's own ideas while considering users' perspectives, often in real-world intercultural settings. It allows for the development of reflexivity and the validation of one's own perspectives.

The juxtaposition of DT with the components of intercultural competence demonstrates the interconnectedness and complementarity of these two areas. Design Thinking can be considered and utilised as a tool for designing innovative solutions. Still, it also serves equally well in the teaching process, developing a range of competencies, including intercultural ones, essential for students to function effectively in the labour market.

4. Implementing DT in Intercultural Business Communication classes

The author of this article uses the Design Thinking methodology as one of the teaching tools in the subject of *Intercultural Business Communication*. The course is offered during the first year of the Master's program in International Business (in English) at the Wrocław University of Economics. The module comprises an interactive lecture and workshops, during which students work on intercultural challenges using the Design Thinking methodology. The workshop component (15H) aims to develop students' competencies in creative and innovative thinking – solving intercultural problems unconventionally, collaborating in culturally diverse groups, and aims to develop intercultural competence, including empathy, openness, cultural self-awareness, the appreciation of different perspectives and communication skills. Furthermore, the purpose of using Design Thinking was to enable students to verify the theoretical knowledge acquired in the lecture and confront it with the intercultural problems faced by people working in an international environment.

The students worked on a challenge related to improving collaboration in intercultural teams. They were divided into groups of four, each consisting of Polish and international students from Germany, Turkey, Spain, the Czech Republic, and Italy (for a total of 20 people in the administrative group). Some of the students had their own experience with intercultural collaboration, including working in international teams. The DT process in which the students worked was divided into 5 stages, in accordance with the model developed at Stanford University: empathization (the students' task was, among other things, to conduct interviews with people who function in a cross-cultural environment in their professional work, both with Poles and foreigners), defining (based on data collected during the empathization stage, as well as drawing on their own experiences, the students described the main problem from the point

of view of the challenge users), ideation (creative work on developing solutions that respond to the previously defined problem; students used, among others, silent and group brainstorming), prototyping (visualisation of the selected solution, joint creation of a presentation showing the results of the joint work), testing (presentation of the developed solutions with simultaneous feedback, answering questions and collecting suggestions and new ideas that could improve the solutions), taking into account reflection at each stage and placing emphasis on noticing.

Working on the challenge enabled students to identify the primary problems and challenges faced by individuals working in intercultural environments. Among the most important, recurring issues across all groups were:

- problems related to intercultural communication, caused by language differences and different communication styles,
- mutual misunderstandings related to differences in values and attitudes caused by different cultural backgrounds,
- different approaches to decision-making,
- difficulties in building trust.

Students also noted the lack of programs that foster cultural awareness within companies, the absence of activities that allow employees to get to know each other better, and the scarcity of team-building activities, which can be particularly problematic for international employees who feel alienated in a new environment. These issues formed the basis for developing solutions and further testing them.

A significant element of the DT process was reflection, which occurred both orally after each session and in writing at the end. The students were given a questionnaire to fill out consisting of eight questions that concerned what went well and what went wrong in the project, what obstacles occurred, what competences the students discovered in themselves and what new ones they acquired, what they learned from their peers, what they would do differently next time, what they would take with them to future projects, and finally, how they assessed DT as a method for acquiring intercultural competence, and which stage/tool of the process, if any, was the most helpful.

Among the responses regarding what went well in the project, students highlighted teamwork, the division of responsibilities among individual members, the final solution they developed, and the presentation of the results. Quoting selected statements: "The group was well-organised and effective. We are basically happy with the results of our work", "Great group work with good outcomes – synergy effects, everyone focused on what he/she is good at – we had fun", "The interviews went well, they were really informative, in the end everything went well". Negative experiences included communication problems and varying levels of engagement among individual group members, insufficient research before developing a solution, the complexity of the challenge, and difficulties in finding the right interviewees. Sample student statements include: "The topic was a bit difficult, so coming up with a working solution was not as easy as I expected", "Not everyone was as ambitious and caring that much".

The competencies students discovered/acquired while working on the project included leadership and team management, teamwork and time pressure management, language and communication skills in a culturally diverse team, creativity, and unconventional thinking. Students also noted increased cultural awareness and sensitivity, as well as knowledge of intercultural issues: "I gained language development, task management and digital communication skills, cross-cultural awareness and cultural sensitivity", "Creativity on a larger scale and I discovered leadership attributes" and "I can be a leader, when we were working together, I often took the initiative". In the following question, students cited things they learned from their teammates. Responses included diverse perspectives, diverse approaches to problem-solving, communication skills, and understanding the behaviour of representatives of other cultures: "I learned how to communicate better and formulate my thoughts and messages", "I have learned how other cultures behave" and "I've learned that there are always different approaches to specific dilemmas, which helped me better adapt to group projects".

The following questions focused on what group members would do differently and what they would take to future projects. The most common responses to the first question indicated better project planning, notably faster development of the final presentation. Regarding what they would take to future projects, they highlighted good communication with team members, using Mural as a collaborative tool, DT as a problem-solving method, brainstorming, and their approach to making presentations. Quoting selected student statements: "The design thinking methods were beneficial – the steps of empathising, defining, and so on made our process more structured and allowed us to understand the problem more deeply and understand it more easily", "It's important to communicate clearly and gain trust with your team members", "I would use Mural again; it was beneficial and helpful with this type of work".

The final question concerned the importance of DT in developing students' cultural awareness. Most stated that the methodology helped build awareness, learning about other cultures, and understanding the challenges of working in an intercultural environment. Only two participants found the DT methodology to be quite complex, and when combined with the problem being solved, this posed a significant challenge. Regarding the stages and tools students found most helpful, they primarily cited empathy and interviews, which allowed for a better understanding of the interviewees' problems, feelings, and cultural behaviours: "The empathy phase was most helpful. I saw people had difficulty communicating with people from different countries or working in different time zones. I hadn't even considered such problems before", "I liked the empathy map – it allowed me to see various statements, feelings, and actions of people from all the interviews. It gave me a broad overview of the perspectives and cultural issues people face when working with foreigners". Students also cited problem definition and ideation as valuable experiences in building cultural awareness, particularly due to the opportunity to learn about perspectives of colleagues from other countries, communicate in English, consider different communication styles, approaches to work organisation,

deadlines, and problem-solving. One participant noted that collaborative work and discussions allowed for challenging previously persistent cultural stereotypes.

In summary, the entire process and students' feelings about using the DT methodology to build intercultural competence should be assessed positively. Students could practically verify their theoretical knowledge, develop empathy, openness, cultural self-awareness, and learn about other cultures, including different perspectives and behaviours. The development of communication skills and intercultural teamwork is also significant. Limitations of the DT methodology include uneven engagement among individual team members, difficulties in measuring this engagement, and challenges in selecting and recruiting the right participants for interviews (in some cases, students conducted interviews with colleagues who had limited intercultural experience). Moreover, the challenge was general, not company-specific, and the ideas developed were not implemented. A much better solution would have been a challenge implemented for a specific company, which would have had an even more practical impact and would also have contributed to increasing the university's social impact (in the coming years, it is planned to work on challenges for specific entities).

5. Summary

Well-developed intercultural competence seems essential in today's world. The analysis and case study indicated that Design Thinking is a promising teaching method for developing students' intercultural competence. The essence of Design Thinking – combining a user perspective with creative problem-solving – promotes the development of skills such as empathy, openness to diversity, the ability to collaborate in a group, and critical reflection on one's own cultural assumptions. In a climate of increasing internationalisation and expectations for universities to respond to societal challenges actively, the use of Design Thinking can improve the quality of the teaching process and strengthen the university's social impact. By working on real-world intercultural problems, students can develop their competencies in this area and co-create solutions with implementation potential that can serve businesses, institutions, and the community as a whole.

From an educational perspective, there is ample room for further development of Design Thinking in higher education. The DT methodology can be successfully integrated into curricula across various fields, not only economics, creative studies, or management, but also in technical fields and the exact sciences, where interdisciplinarity is increasingly being pursued and project work is standard practice. Combining DT with other teaching methods is also a good idea. Combining Design Thinking with Collaborative Online International Learning (COIL) may be particularly promising, enabling students to collaborate in intercultural teams online. This type of collaboration enables the development of communication skills, cultural

awareness, and the building of international networks with peers from other countries. Integrating DT with COIL can strengthen the process of developing cultural competence, broadening participants' perspectives to include the development of digital skills and a transnational dimension.

At the same time, research limitations and gaps must be identified. Existing analyses focus on individual teaching projects, making it difficult to assess the long-term impact of DT on the development of intercultural competence. There is a lack of systematic comparative research examining the effectiveness of DT compared to other teaching methods and research that captures the sustainability of acquired skills. There is also a lack of research on the impact of cultural differences on the use and reception of DT methodology. What is well-received in one cultural group may have a completely different dimension in another, raising questions about the need to adapt the method to other cultural contexts.

Another area requiring further exploration is the analysis of the impact of DT on the social dimension of university activities. The literature still lacks studies demonstrating how DT-based projects implemented by students can contribute to fundamental changes in the socio-economic environment of universities, for example, through collaboration with local entities or the creation of social innovations. This issue is essential in the context of growing demands and expectations towards higher education, so that its activities are not limited to the academic sphere, but also influence the formation of more inclusive and open communities.

In summary, DT can be viewed as an effective teaching method supporting the development of intercultural competence and a tool for increasing the social impact of universities. Further empirical research, encompassing broader participant samples, diverse cultural contexts, and innovative teaching methods such as COIL, seems necessary to fully understand the possibilities and limitations of this methodology. In this way, DT's potential can be harnessed in building future competencies that will determine the quality of intercultural collaboration, graduates' competitiveness in the labour market, and the social role of universities in a changing world.

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