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THE INFLUENCE OF LEARNING ENVIRONMENTS ON THE
DEVELOPMENT OF INTERCULTURAL COMPETENCE: A CASE STUDY IN
AN INTERNATIONAL MASTER'S PROGRAM

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RESUMO

As relações interculturais se tornaram uma preocupação generalizada em um mundo cada vez mais globalizado no contexto do mercado de trabalho global e no ambiente acadêmico. Mas são necessárias mais pesquisas sobre o desenvolvimento da competência intercultural do indivíduo pois ainda não está claro como a competência intercultural se desenvolve nos estudantes. Assim, o presente estudo busca compreender como os ambientes de aprendizagem de um mestrado internacional influenciam no desenvolvimento da competência intercultural entre seus estudantes. O referencial teórico teve como base os estudos sobre competência intercultural e os ambientes de aprendizagem. Realizou-se um estudo de caso, de abordagem qualitativa, envolvendo ex-estudantes, professores e administradores do programa. Buscou-se analisar as experiências dos discentes nos ambientes de aprendizagem do programa e como estes influenciaram o desenvolvimento da competência intercultural com base nas referências teóricas constituídas. Foram identificadas as particularidades dos ambientes de aprendizagem físico, tecnológico, pedagógico e psicossocial do programa de mestrado internacional no desenvolvimento da competência intercultural entre os estudantes. Dentre os principais resultados do estudo, se compreende que, de acordo com os ex-estudantes, os ambientes de aprendizagem do programa de mestrado internacional possuem um impacto no desenvolvimento da competência intercultural. Por fim, foram elaboradas sugestões de ações e iniciativas a serem realizadas em busca de maiores contribuições para melhorias nos ambientes de aprendizagem no programa como um dos resultados do programa de mestrado internacional analisado e em demais programas que visem o desenvolvimento da competência intercultural entre seus estudantes.

Palavras-chave: Competência Intercultural. Ambientes de Aprendizagem. Programa de Mestrado Internacional.

ABSTRACT

Intercultural relations have become a widespread concern in an ever more globalized world in the context of the global labor market and in the academic environment. But more research about the individual's development of intercultural competence is needed, since it is still unclear how intercultural competence develops in students. Thus, the present study seeks to understand how the learning environments of an international master's program influence the development of intercultural competence among its students. The theoretical framework consisted of studies on intercultural competence and learning environments. A qualitative case study was carried out with former students, teachers, and managers of that program. We sought to analyze students' experiences in the program's learning environments and discuss how these experiences influenced the development of intercultural competence based on the theoretical references established here. The particularities of physical, technological, pedagogical, and psychosocial learning environments of the international master's program regarding the development of intercultural competence among students were identified. Among the main results, the learning environments of the international master's program affect the development of intercultural competence, according to former students. Finally, we make suggestions for actions and initiatives towards greater contributions to improvements in the learning environments in the program as possible outcomes of the international master's program analyzed here and of other programs that aim the development of intercultural competence among its students.

Keywords: Intercultural Competence. Learning Environments. International Master's Program.

TABLE OF CONTENTS

1. INTRODUCTION

Intercultural relations have become a widespread concern in an ever more globalized world in the context of the global labor market and in the academic environment. As a result of economic globalization, there has been a significant reduction in geographical barriers, and communication technologies have experienced significant changes, strengthening and facilitating information sharing (FREITAS, 2009). The adoption of new technologies among organizations has accelerated in recent years and, according to the World Economic Forum's The Future of Jobs report (WEF, 2020), new technologies are expected to increase the growth of industries by increasing the demand for new types of jobs and skill sets.

Critical thinking and analysis, as well as problem-solving, are skills that employers consider increasingly important. However, according to the World Economic Forum's Future of Jobs (2020), self-management skills such as active learning, resilience, stress tolerance, and adaptability are also emerging as desirable skills.

Workers must also develop "transversal skills," that is, abilities that can be used in a wide range of work circumstances and environments and that are not tied to a certain profession, field, or even tasks (UNESCO, 2021 apud OECD, 2021) in order to adapt to technological changes or unexpected crises in a rapidly changing world. Some skills, such as communication, teamwork, customer handling, problem-solving, learning, planning, and organizational skills, are identified as essential "transversal skills" in a research conducted by the European Center for the Development of Vocational Training Skills and Jobs (OECD, 2021).

In this multicultural and globalized world, intercultural competency is becoming increasingly important (PERRY; SOUTHWELL, 2011). This competence has been of great importance in the 21st century because it attracts great the interest of many sectors around the world (DEARDORFF, 2015). As the globe becomes more interconnected, companies and international educational institutions increasingly regard the development of intercultural competency as a desirable goal (PERRY; SOUTHWELL, 2011). One of the most critical societal challenges, especially after the epidemic, is to strengthen the links between the academic environment and the labor market to ensure that young people know what the labor market needs (OECD, 2021).

Valuing and assessing intercultural competence development is in line with contemporary trends in higher education that address competencies required for this global age (FANTINI, 2005). In education, the task of training students to work effectively as part of a team in a diverse global workforce is a challenge for colleges. Many universities have included internationalization in their strategic goals due to globalization trends and demographic changes (MAK; KENNEDY, 2012). There are intercultural programs in higher education, and the composition of faculty and students who take diversity into account is becoming increasingly appreciated (FREITAS, 2009).

The term "intercultural" has been addressed more frequently in the academic environment because globalization impacts began to be noticed (FREITAS, 2009). However, Deardorff (2006) states that academics define intercultural competence, but there is no agreement on how it should be defined. Scholars and managers in higher education have not defined intercultural competence in terms of distinct components. Both managers and intercultural researchers have favored broader definitions of intercultural competency, which has become increasingly difficult to define as the field evolves (DEARDORFF, 2006).

According to Deardorff (2006), one of the results of the internationalization process in higher education institutions is the development of interculturally competent students. Despite this, academic institutions traditionally pay little attention to the development of interculturally competent students as a result of internationalization (DEARDORFF, 2006).

Cultural diversity enriches learning environments and may provide a safe space for intercultural discourse and development of cultural sensitivity (MARKEY et al., 2021). According to Closs et al. (2021), learning environments allow a natural understanding of the students' learning experiences in higher education, which is described as the "social, physical, psychological, and pedagogical contexts in which learning occurs and which affect student achievement and attitudes" (SKORDI; FRASER, 2019).

Perry and Southwell (2011) claim that a better knowledge of how intercultural competence can be developed is necessary. More research about the individual's development of intercultural competence is then required, according to Deardorff (2006), as it is still unclear how intercultural competence develops in students.

So far, little is known about how this competence develops and how it occurs in multicultural learning environments. Deardorff (2015) asserts that more research is needed to determine the best learning activities, experiences, and scenarios for different audiences, contexts, and surroundings in order to better understand how intercultural competence develops in people. Even with more research and growth in the area, intercultural competency and development in higher educational programs still faces challenges (YAROSH et al., 2018). While education may effectively develop some aspects of intercultural competence, there is not much evidence that it develops other components rather than cultural knowledge (PERRY; SOUTHWELL, 2011). That said, the following research question emerged: how do learning environments influence the development of intercultural in a multicultural learning environment in higher education?

The theoretical contribution of this research is relevant to future studies on how college students learn in multicultural settings. This research can be useful for higher education programs that emphasize intercultural exchange and knowledge among students. It may also help in understanding how learning environments may or may not exert an impact on how students build intercultural competence.

2. GOALS

Main objective

To understand how learning environments influence the development of intercultural competence in a multicultural learning environment in higher education.

Specific objectives

- Analyze graduates' perception about the multicultural learning environment impact on the development of intercultural competence and possible benefits from it;
- Identify whether elements related to intercultural competence are developed in graduates in a multicultural learning environment;
- Analyze how the physical dimension of the learning environment influences the development of intercultural competence;
- Analyze how the technological dimension of the learning environment influences the development of intercultural competence;
- Analyze how the pedagogical dimension of the learning environment influences the development of intercultural competence;
- Analyze how the psycho-social dimension of the learning environment influences the development of intercultural competence;

3. LITERATURE REVIEW

3.1 INTERCULTURAL COMPETENCE

As Hiller and Woźniak (2009) claim, intercultural competence is a continuous and dynamic process by which different abilities are acquired that are necessary to address highly interconnected international situations. Deardorff (2006, p. 247) defines intercultural competence as "the ability to interact effectively and appropriately in intercultural situations, based on one's intercultural knowledge, skills, and attitudes." Hiller and Woźniak (2009) define intercultural competence as a multidimensional construct that enables a person to perceive intercultural contacts without feeling threatened. Intercultural competence is "the complex of abilities needed to perform effectively and appropriately when interacting with others who are linguistically and culturally different from oneself," states Fantini (2005, p. 1). To summarize several definitions, intercultural competence is essentially strengthening human interactions across differences, whether within a same society or across borders (DEARDORFF, 2020).

Contact with people from different cultures and languages is a great way to encourage the development of intercultural competence (FANTINI, 2005). Cultural variety inevitably appears in the global business, making intercultural competence a crucial skill (SPITZBERG; CHANGNON, 2009).

The workforce has changed significantly in a wide range of personal traits in recent years, and cultural diversity ranks as one of the most important of them (LLOYD; HÄRTEL, 2009). From the point of view of many employers, a high level of competence in key skills almost always improves the student's employability, and intercultural competence, in particular, is often seen as an asset (BUSCH, 2009). Large corporations turn cultural diversity into a business policy, implying that employers must be interculturally competent (SPITZBERG; CHANGNON, 2009). However, employers acknowledge intercultural competence as an important element of a person's basic qualifications, but few of them know what it really means or how to assess it (BUSCH, 2009).

There are several definitions when it comes to the components involved in intercultural competence. Authors classify them in different ways. The most relevant

theoretical models that contribute to the present study are presented below, along with the components involved.

Hiller and Woźniak (2009), for instance, use in their study the following intercultural competence components: respect for otherness, knowledge discovery, behavioral flexibility, tolerance to ambiguity, empathy, and communicative awareness. On the other hand, according to Perry and Southwell (2011), intercultural competence consists of a set of qualities that can be found in different authors' definitions, including skills, knowledge, attitude, and behavior.

Knowledge and understanding, attitudes, skills, intended internal outcomes, and desired external results are all components that Deardorff's (2006) model uses to define intercultural competence, representing a transition from a personal to an interpersonal level. According to Deardorff (2006), knowledge and comprehension are related to cultural self-awareness and knowledge, as well as sociolinguistic awareness. When it comes to the attitude component, the attitudes of openness, respect, curiosity, and discovery (tolerating ambiguity) are seen as fundamental to intercultural competence. Skills, in turn, are related to listening, observing, analyzing, and relating. Internal outcomes are the development of empathy, flexibility, and adaptability. Effective and acceptable communication and behavior in an intercultural environment are understood as part of the external outcome component.

According to Deardorff's (2006) model, although it is possible to proceed directly to an external outcome, the degree of appropriateness and effectiveness of the outcome may not be as high as when the entire cycle is completed and then repeated. This type of process shows an ongoing process of intercultural competence development, which means it is a never-ending process of improvement (DEARDORFF, 2006).

Fantini (2006) proposes four elements contained in intercultural competence, namely knowledge, awareness, skills, and attitudes. According to Fantini's (2006) model, the knowledge dimension is concerned with issues relating to culture, such as conceptual understanding of what culture is and how to learn more about a new culture. Abilities are those that are crucial for an interculturally competent behavior, such as self-directed learning about a new culture, conflict resolution, among others. The readiness to interact with representatives of a new culture is measured by the attitude dimension. Awareness means being aware of cultural differences, of the need to adapt to new behaviors, among others.

Yarosh et al. (2018) reviewed intercultural competence models in their study and argued that the KASA framework appears to be relevant in the literature. This framework determines four types of elements that comprise intercultural competence: knowledge, awareness, skills, and attitudes (KASA). For the present study, this model most closely matches the context presented here and is the best in contributing to the research objectives proposed here.

Each component of the KASA framework (YAROSH et al., 2018) is identified by the following characteristics regarding intercultural competence:

- Knowledge: Necessary information and facts that contribute to deal with cultural diversity. It may be seen as knowledge related to different cultures and ways of behaving when dealing with people who are culturally different.
- Awareness: Consciousness that people are different and conditioned by their cultures, and being aware of cultural aspects of others and of oneself.
- Skills: Necessary behavior elements to deal with cultural diversity, including observable and not observable ones, such as proper communication skills, adaptability, among others.
- Attitudes: Modes of thinking, feeling, and connecting to cultural diversity, such as acceptance of differences, tolerance, open-mindedness, non-judgmental attitudes, among others.

According to Deardorff (2015), there are several myths surrounding the development of intercultural competence, including the belief that international experience equates to intercultural competence and that intercultural competence emerges naturally and cannot be taught. Intercultural competence does not emerge from cultural knowledge alone, and students must critically explore cultures rather than simply collecting facts and knowledge about them (PERRY; SOUTHWELL, 2011). An interculturally competent student must be able to sense and respond to changes appropriately and successfully, considering that intercultural competence is founded on a concept of culture as an open, dynamic, and changeable construct (HILLER; WOŹNIAK, 2009).

According to Yarosh et al. (2018), the element of awareness is also not developed automatically by students, and yet it seems to be a highly discussed element

of intercultural competence. The skills required to participate in intercultural communication are not acquired by accident (BUSSE; KRAUSE, 2015). In fact, it is critical to see intercultural competence as a competence that can be purposefully developed (YAROSH et al., 2018) and that this development is usually a long and turbulent process, with moments of regression or stagnation, but more often with positive outcomes and no end in sight (FANTINI, 2005).

Attitudes related to intercultural competence, in turn, are seen as key elements in the development of such competence (YAROSH et al., 2018). Some examples from Fantini's (2006) study: interacting with host culture; trying to understand differences in behaviors, values, and styles; showing interest in new cultural aspects; among others.

3.1.1 Intercultural competence learning and development

Higher education institutions should provide learning environments that embrace cultural differences and allow students from many cultural backgrounds to succeed (WARGER; DOBBIN, 2009). Institutions must stress the relevance of cultural competency development, culturally responsive pedagogy, and culturally responsive classroom management strategies by requiring education and training in these areas (MARKEY et al., 2021). However, the creation of effective and clear learning experiences in environments that enable and support learning in intercultural situations has been a key challenge for higher education institutions (SMITH; PARACKA, 2018).

Intercultural learning requires careful facilitation to maximize opportunities for students to recognize knowledge of their own cultural identities as well as cultural differences; therefore, activities should provide opportunities for intercultural dialogue and understanding (MARKEY et al., 2021). However, specifically intercultural skills and views are less easily included in course designs than global and international dimensions (MAK; KENNEDY, 2012). Before applying intercultural competence to specific contexts, it is also beneficial to frame it in broad cultural terms through interdisciplinary techniques (SMITH; PARACKA, 2018).

Also, intercultural learning is directly related to shared learning, since in this way people learn not only about the other within relationships but also about themselves (SMITH; PARACKA, 2018). Collaborative learning, such as project-

based and problem-based learning methodologies, for example, allows students to work together to achieve a common objective while also allowing them to develop multiple transversal abilities (OECD, 2021). There is a need for a collaborative approach to developing learning resources and sharing expertise that can be used to guide discussions within an intercultural classroom (MARKEY et al., 2021).

Cultural experiential activities have the potential to accomplish the dual educational goals of internationalizing the curriculum and nurturing all students' intercultural communication skills, which are necessary for dealing with people from different cultures (MAK; KENNEDY, 2012). According to Smith and Paracka (2018), students suggest that intercultural learning should be more immersive and diversified, incorporating a variety of tasks and assessments that would allow students to personalize their learning while connecting it to local and global communities.

Faculty members should be professionally trained to improve their intercultural awareness and subsequently develop intercultural awareness and sensitivities of their international students (MAK; KENNEDY, 2012). This competence is developed by a practical experience that seeks to understand differences, build connections, and engage in common problem-solving (SMITH; PARACKA, 2018). Also, a mix of face-to-face and online activities, which students may choose based on their developmental goals to build intercultural competence, could be an optimal solution (YAROSH et al., 2018).

3.2 LEARNING ENVIRONMENTS

Higher education learning environments are becoming increasingly internationalized as a result of globalization (LIMA et al., 2020). In the environments of professional training, the demand for renewal in educational practices is always present. It is primarily attributed to the increasing prevalence of technology, communication, social changes, globalization of education, and the search for more-qualified professionals (SILVA et al., 2018). Colleges are dedicated to developing policies and programs that improve students' experiences and prepare them for the workplace in an increasingly global market (MAK; KENNEDY, 2012).

According to Martín et al. (2021), as a consequence of the COVID-19 pandemic, the use of information and communication technologies has been enforced

by universities and its use has accelerated. These changes fostered a process of digital transformation in higher education institutions, leading to new pedagogical models and learning environments (MARTÍN et al., 2021).

Even though the concept already exists for a long time, there is little agreement on what constitutes a learning environment (DAY, 2009). According to Warger and Dobbin (2009), a learning environment comprises a variety of factors that influence learning. As Silva et al. (2018) state, it is complex because it involves a set of dimensions that are integrated and that require the attention of the agents involved, especially teachers and program managers. Therefore, the concept demands a greater understanding regarding its structure and implications for learning and teaching (SANTIAGO; SILVA, 2021).

The scientific literature on learning environment describes a variety of concepts, understandings, and dimensions (CLOSS; MAHAT; IMMS, 2021). Different authors argue for different dimensions involved in the concept of learning environment, and they usually vary. As Silva et al. (2018) stated, the learning environment involves physical, behavioral, emotional, social, and technological dimensions. They all play a central role in the way by which knowledge is gained by individuals based on learning mediated by experiences in an environment while enabling students to use their reactions and understanding to improve learning. On the other hand, the concept of learning environment of Warger and Dobbin (2009) includes technology and resources, teaching and learning methods, human behavioral and cultural components, and the critical function of emotion in learning.

Da Silva et al. (2021) argue for the concept of Multidimensional Learning Environment, which consists of a setting of physical, psychological, pedagogical, social, and technical dimensions that mediate student-teacher interactions. According to the authors, these five dimensions increase the complexity of learning processes and create a learning environment that is centered on the students and is capable of engaging them to collaborate and participate in activities.

Closs et al. (2021), in turn, address other dimensions in a learning environment, namely psycho-social, physical, and pedagogical. In this case, the authors combine the psychological and social dimensions into one and do not consider technology as an isolated dimension.

To meet the present study's objectives and for the purposes of simplification and clarity, the dimensions that will be used as classification and further explored in

details in this research are the physical, technological, psycho-social, and pedagogical dimensions.

3.2.1 Physical dimension

The physical component of the environment is defined as the physical space in which learning takes place (MERRIAM; BROCKETT, 2007 apud. SILVA et al., 2018). The relationship between the physical and the learning environment is complex (FISHER, 2016). The physical environment, in a broader sense, encompasses both official and informal educational systems and goes beyond the conventional classroom (SILVA et al., 2018).

Students' perceptions of the physical classroom may have a positive or negative impact on learning since students interpret the characteristics of the environment in the classroom and their view influences their attitude towards learning (ASIYAI, 2014). The adult learning process, which includes relationships of cooperation and collaboration through social interchange and knowledge sharing, is intimately tied to aspects of the classroom layout and physical space (DA SILVA et al., 2021). According to the authors, furniture, room organization, and the availability of technology resources may affect students' actions and activities. Uncomfortable furniture, poor climate control, distractions, and overcrowding are factors that may make it difficult to learn in the classroom (FISHER, 2016).

Closs et al. (2021) state that the type of space affects students' learning experiences (i.e., more or less student-centered), as well as other factors such as room size, furniture, and technology used. Physical comfort, flexibility, and variety in learning places are critical, and factors such as access and inclusion have a significant impact (FISHER, 2016). For instance, the arrangement of seats in circles in a classroom facilitates interactions among students and teachers and helps them to see the environment as a whole (SILVA et al., 2018).

The physical learning environment that goes beyond the classroom is related to the physical space where the students take their online classes. For people who study remotely, a practical and comfortable setting is needed (temperature, noise, lighting, and ergonomic furniture) (NG, 2021).

3.2.2 Technological dimension

According to Martín et al. (2021), a virtual educational environment is characterized by many aspects, including methodological diversity, interactive multimedia, independence in space and time through digital tools, collaborative learning etc. Virtual environments can enhance collaborative learning through a collective construction of knowledge considering a social learning context (DA SILVA et al., 2021).

Higher education institutions must modernize their environments to enable students to consider themselves as active learners (WARGER; DOBBIN, 2009). Technology-enhanced teaching methods connect universities all over the world, endorse internationalization (LIMA et al., 2020), and allow professors and students to go beyond the classroom and examine learning influences outside it separated by geographic or temporal distance (WARGER; DOBBIN, 2009).

Technologies should be used as a tool in a learning environment (SILVA et al., 2018). However, effective technology integration in education also calls for the integration of pedagogical expertise, subject matter, and technology itself (MARTÍN et al., 2021). Higher education institutions should regard the use of digital platforms, pedagogical structures to ensure the quality of instruction, and the use of technology in the classroom as institutional tactics (LIMA et al.2020). Given its influence on the development of 21st-century skills and abilities, quality teaching and learning processes in higher education are nearly impossible without technology (MARTÍN et al., 2021).

The technological environment also began to merge components of the physical, psychological, and social environments within the setting of the Covid-19 pandemic, implying that studies in hybrid learning environments should be examined more thoroughly (SANTIAGO; SILVA, 2021). With the help of technology, almost any place may be converted into a study and learning environment (SILVA et al., 2018).

Regarding hybrid education, the student is not always physically present in the institution, and this does not imply that the physical environment is no longer relevant, as it continues to be present in the place where the student uses video conferencing platforms to communicate with teachers (DA SILVA et al., 2021). According to the authors, technological resources have an impact on students' emotions and social

interactions, requiring pedagogical preparation that takes into account all elements for students to feel more motivated and engaged, and to obtain more successful outcomes.

3.2.3 Pedagogical dimension

The pedagogical dimension focuses on the learning environment's activities, techniques, and structures, as well as how it is constructed and its aspects are made accessible (HANNAFIN; LAND, 1997). The planning of teaching action is a key component of the learning environment (SANTIAGO; SILVA, 2021).

Teachers are responsible for operationalizing the curriculum and assist students in collaborative learning and engagement and motivation in order to make a decisive contribution to the quality of education (DA SILVA et al., 2021). According to the authors, this is crucial in the development of a multidimensional learning environment. The teacher's instructional actions must be planned with the goal of increasing student engagement and boosting performance, which requires interactive and innovative teaching and learning tactics (SANTIAGO; SILVA, 2021). Students' motivation increases when the learning environment is seen as relevant, exciting, and adaptable, which demands the teacher to plan activities that promote teamwork and project development through active learning (DA SILVA et al., 2021).

3.2.4 Psycho-social dimension

This dimension joins the social to the psychological dimensions. Both concepts are present in the literature. In a learning environment, psychological and social dimensions are closely connected since these dimensions refer to the origins or outcomes of human behavior (CLOSS et al., 2021).

The social dimension of a learning environment is related to how people generate meanings depending on their interactions with the physical and social world (SILVA et al., 2018). According to the authors, this dimension is linked to learning from others and from personal relationships in the learning context.

The psychological dimension addresses topics such as the teacher's role as a facilitator and enabler of learning through emotional relationships, as well as teacher-student interactions (SILVA et al., 2018). Because the teacher is a significant character

in the classroom, he or she has the ability to impact how students feel in the classroom, whether they feel more comfortable or motivated (SANTIAGO; SILVA, 2021).

The efficacy of a learning environment lies in learning outcomes; therefore, the student experience should be centered on people (WARGER; DOBBIN, 2009). Individuals suffer interference of their emotions when managing their activities in the environment, and they develop different cultural and social relationships with the latter (SILVA et al., 2018).

Students' nationalities, genders, and ethnicities may influence different uses of spaces in the physical environment of the classroom, as well as the effectiveness of learning activities proposed by tutors and instructors (CLOSS et al., 2021). Understanding and reacting to students' different cultures and learning styles are essential for developing instructional techniques and resources that meet individual and collective learning requirements (MARKEY et al., 2021). Therefore, establishing ground principles for international classrooms is critical. Special care must be taken when negotiating ways to accept variations in beliefs without avoiding cultural sensitivities (MARKEY et al., 2021). The intercultural competence, for instance, cannot be fully developed without a targeted learning intervention even in such promising and rich learning environments as an international master's program (YAROSH et al., 2018).

In order to synthesize the literature review and connect it to the expected objectives of this study, the table below was constructed. In this chart we can find the specific objectives of the present study, the theory used for each objective and the main authors involved.

Specific objectives	Theory	Main authors
Analyze graduates' perception about the multicultural learning environment impact on the development of intercultural competence and possible benefits from it	Intercultural competence	Deardoff (2006); Markey et al. (2021)
Identify whether elements related to intercultural competence are developed in graduates in a multicultural learning environment	Intercultural Competence; KASA Model	Deardoff (2006); Yarosh et al. (2018)

Analyze how the physical dimension of the learning environment influences the development of intercultural competence	Learning environments	Closs et al. (2021); Silva et al. (2018)
Analyze how the technological dimension of the learning environment influences the development of intercultural competence	Learning environments	Closs et al. (2021); Silva et al. (2018)
Analyze how the pedagogical dimension of the learning environment influences the development of intercultural competence	Learning environments	Closs et al. (2021); Silva et al. (2018); Santiago, Silva (2021)
Analyze how the psycho-social dimension of the learning environment influences the development of intercultural competence	Learning environments	Closs et al. (2021); Silva et al. (2018); Markey et al. (2018)

4. METHODOLOGY

Considering the opportunities for discussion and understanding of the subject arising from previous studies, this research adopts a qualitative and exploratory approach in order to help to establish more specific problems or ideas for subsequent investigation while it also presents a broad and approximate panorama of the research subject (GIL, 2008). Due to the nature of the study object itself and its context, a case study will be conducted as part of the qualitative approach, since the master's degree analyzed here has characteristics that differ from other traditional international graduate programs in terms of structure and methodology. More details related to the master's program will be given below. According to Yin (2005), this case study is therefore referred to as a unique case project, since it represents a peculiar case. More details regarding the case will be provided later in this study.

For some research objectives, the case study is a required and sufficient approach. It performs well compared to other methods in social scientific research methodology (FLYVBJERG, 2006). The case study is defined by a thorough and in-depth examination of a subject with the objective of learning everything there is to know about a topic (GIL, 2008). It is used in a variety of settings to aid the understanding of various phenomena such as individual, group, organizational, and other related topics (YIN, 2005).

According to Gil (2008), one of the goals of a case study is to describe the setting in which a particular research is conducted rather than to offer precise knowledge of a population's features. It broadens or generalizes theoretical propositions. The case study also allows concentrating on a single instance while maintaining a holistic, real-world viewpoint in the study (YIN, 2005). Its resemblance to real-life situations is critical for the formation of a complex understanding of reality (FLYVBJERG, 2006).

The choice of participants intends to contemplate different perspectives on the investigated phenomenon. Therefore, here, it involved former students who had completed the program in the last four years (because their memory is recent), professors, and program managers. Regarding the former students' selection, diversity was sought with respect to their nationalities in order to capture differences in their cultural perspectives. As for teachers and managers, they were selected from the

program's first-year core courses. In order to maintain confidentiality, the names of interviewees and the name of the program itself have been suppressed.

A total of ten former students were interviewed, as the table below shows.

Identification	Nationality	Gender	Age group	Previous educational background	MIEX Year Class	Modality of the program
Student 1 (S1)	Mexican	Male	25-34	Bachelor's in international business and Commerce	2018-2020	Triple Degree Track
Student 2 (S2)	New Zealander	Male	25-34	Bachelor's in computer systems engineering	2017-2019	Triple Degree Track
Student 3 (S3)	Italian	Female	25-34	Bachelor's in Languages	2017-2019	Triple Degree Track
Student 4 (S4)	Italian	Female	25-34	Bachelor's in international studies and Economics	2018-2020	Triple Degree Track
Student 5 (S5)	French	Female	25-34	Bachelor of Business Administration in international management	2017-2019	Triple Degree Track
Student 6 (S6)	Brazilian	Female	25-34	Bachelor's in administration	2017-2019	Triple Degree Track
Student 7 (S7)	Brazilian	Female	25-34	Bachelor's in administration	2017-2019	Triple Degree Track
Student 8 (S8)	Italian	Male	25-34	Bachelor's in business administration	2016-2018	Triple Degree Track
Student 9 (S9)	Mexican	Female	35-44	Bachelor's in international business management and Graduate in Export	2020-2021	Fast Track
Student 10 (S10)	Indian	Male	25-34	Bachelor's in mechanical engineering and Design	2019-2020	Fast Track

In addition to former students, two professors from each university that teach the first year of the program (University of Bologna and ICN Business School) and two program managers were also interviewed.

Identification	Role in MIEX	Institution	Years in MIEX
Manager 1 (M1)	Manager Director	University of Bologna	19 years
Professor 1 (P1)	Professor	University of Bologna	7 years
Manager 2 (M2)	Manager Director and Chairman of international board of studies of MIEX Program	ICN Business School	10 years
Professor 2 (P2)	Professor	ICN Business School	9 years

When in conjunction with other methodologies, the qualitative interview is useful (GASKELL, 2003). Therefore, semi-structured in-depth interviews with students, professors, and program managers were conducted to understand better how intercultural competency is built in the international master's learning environments. The interviews focused both general and particular issues related to the development of intercultural competence in the learning environments of the program considering each specific group: former students, teachers, and program managers.

Also, to add further context to the case study, secondary data were collected by consulting documents related to the program, such as the Student Handbook, the Program Regulations, and the program's website. In addition, this study will be complemented with contributions made through the author's experience as an observing participant in the program. The researcher's familiarity with the subject may be used to guide the subject selection, which is referred to as the local knowledge case and, as a result, intimate information and opportunity for an in-depth analysis may be available (GARY, 2011).

Email invitations, messages via instant messaging apps, and directed messages through social media were used to contact interview participants. The online

interviews were conducted and recorded by the video conference software. The saturation criterion was applied upon reaching a point where the results of interviews no longer added new categories (COLBARI, 2014).

The interviews' transcriptions were made, and a content analysis was carried out. This is a set of communication-analysis approaches that uses systematic and objective procedures to describe the content of messages. Content analysis allows the execution of regulated, methodical, and objective methods that take into account quantification and turn raw material into treated data (COLBARI, 2014). The intention of this analysis is to infer knowledge on the conditions of production (BARDIN, 2016).

The first steps in content analysis are the definition of objectives and the creation of the conceptual framework. Thus, the next step is to create the material set that will be subjected to analytical methods (COLBARI, 2014).

According to Bardin (2016), a categorization's primary goal is to produce a simplified representation of raw data. It consists in the process of separating and then regrouping constituent elements. That is why it is necessary to understand what the elements have in common with each other in order to classify them into categories. Therefore, there were created *a priori* learning environment dimensions categorizations: physical, digital, pedagogical, and psycho-social. The data were grouped according to these dimensions. According to Colbari (2014), creating a categorical system allows organizing data and is an important step in content analysis as it establishes a relationship between the study objectives and the findings.

5. THE INTERNATIONAL MANAGEMENT MASTER'S PROGRAM

The master's program under analysis was chosen because it is unique compared to other, more conventional programs offered by educational institutions. This program stands out in the context of higher international education because it offers special opportunities for original research.

The program was founded in 2001, co-designed by the Forli Faculty of Economics, University of Bologna (Unibo), in partnership with the ICN Business School. It is a multiple master's degree program for graduate students interested in the internationalization of businesses. It aims to develop well-trained, dynamic individuals who are ready to take on the challenges of the global business world.

The traditional mode of the program is divided into two years. In the first year, the student takes his or her first semester at ICN Business School in Nancy, France, while the second semester is taken at the University of Bologna, in Italy. Both semesters are compulsory for all participants, since these are the core universities of the program itself. Basic components of international business administration and management, as well as basic research and consulting procedures, are covered in the first year teaching modules.

The second year is taught at a partner university around the world, which may be chosen by students according to their personal preferences and professional ambitions. The second year partner academic institutions are based in Brazil, China, Germany, Mexico, and Russia.[1] The student receives a triple degree, one from each institution they attended, while enrolled in the two-year master's program.

Another variant of the program is called "Fast Track," in which the student completes only the first year of the program. In this mode, the student completes an internship at the end of the second semester and receives a diploma and a certificate for his or her efforts.

According to its website, the program aims to prepare global business leaders of tomorrow, and its goal is to train students to address the needs of multinational companies, organizations operating in international markets, or to support small and medium businesses willing to boost their internationalization. Therefore, the course is

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[1] The program ended its partnership with the Russian educational institution at the beginning of 2022 due to that country's war context.

designed for graduate-level students that have proficiency in the English language and wish to pursue an international career.

When it comes to methodologies, the program's activities are composed of in-class preparation accompanied by a set of hands-on, in-field experiences that put theory into practice. The class size of the master is minimum 20 and maximum 75 students, including participants from different nationalities.

Data from one of the program tutors show that over the past five years, 279 students have participated in the program, representing 40 different nationalities or a 14% global diversity. Italian students make up the majority of the student body (55.5%), followed by French students (16.1%), and Russian students (10.7%).

According to descriptive analysis, the academic background of students comprises 62.7% students from the business area, followed by 14% from the language area, 7.9% from law, and 15.4% from other diverse educational backgrounds. The graphic below shows these data.
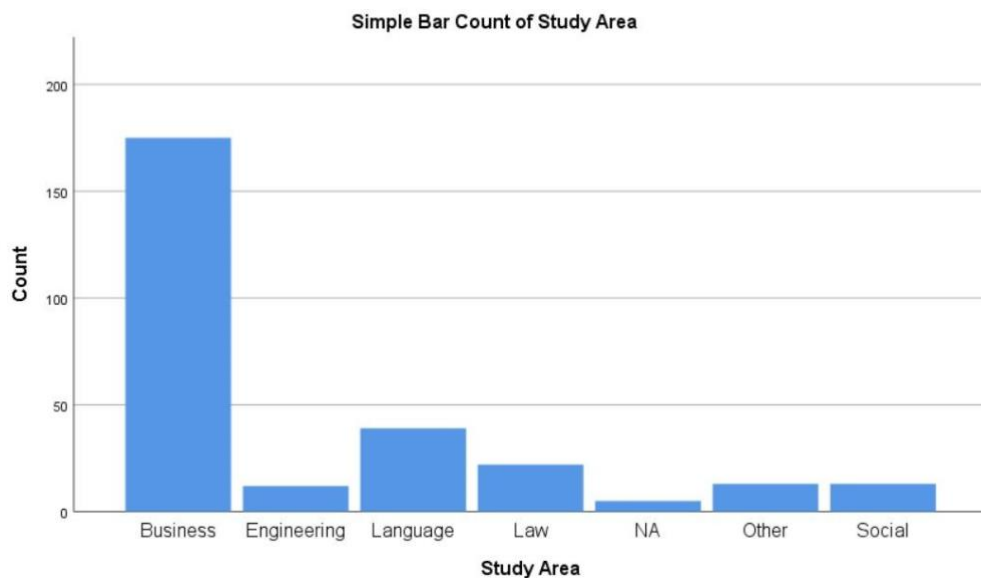
The overall age of students is between 18-24 and 25-34, and the cohorts are composed of 52% of women and 48% of men, thus a balanced heterogeneous classroom regarding gender and age.

According to the program's Brochure, since there are students from all over the world, the program itself creates a global environment inside and outside classrooms, fostering an atmosphere of international collaboration that evokes cultural awareness and sensitivity in students. The Program Regulations handbook also explains a specific

goal regarding the multicultural environment provided by the program, as is shown below.

LEARNING GOAL	**1. Graduates will be able to develop thorough knowledge in management and demonstrate their specific skills.**
Knowledge & Adaptability	
LEARNING OBJECTIVES	1.1. Show critical understanding of core international business knowledge and communicate it effectively in written and orally.
Students will be able to…	1.2. Show awareness of key challenges and dilemmas associated with international business and willingness to deal with them.
LEARNING GOAL	**2. Graduates will be able to show independent thinking in business issues and propose informed solutions.**
Critical Thinking & Innovation	
LEARNING OBJECTIVES	2.1. Acquire required skills to critically evaluate alternatives in a complex business situation and thoughtfully apply appropriate models for analysis of problems.
Students will be able to…	2.2. Design an appropriate and informed creative recommendation to a given issue.
LEARNING GOAL	**3. Graduates will be able to manage decision-making processes following CSR and sustainable standards.**
Responsible Management & Sustainability	

LEARNING OBJECTIVES	3.1. Make well thought decisions, fully aware of their impact on the organization, people, and environment.
Students will be able to…	3.2. Contribute as productive members to a project and show team management and leadership skills.
LEARNING GOAL	**4. Graduates will be able to use and share transdisciplinary insight and integrate multicultural environments.**
Open-Mindedness & Transdisciplinarity	
LEARNING OBJECTIVES	4.1. Show understanding and critical appreciation of the importance of cultural differences when working in a multicultural environment.
Students will be able to…	4.2. Show ability to combine various perspectives to build up a new framework in real world projects.

Source: Program Regulations (2020)

The program's overarching objective is to educate students who want to work in international management and who want to show their ability to adapt to changing dynamic conditions and cultural variations, according to the same Program Regulations.

6. ANALYSIS OF RESULTS

This section of analysis of results contains six items. This first item (6.1) aims to analyze the graduates' perception about the multicultural learning environment impact on the development of intercultural competence and possible benefits from it (specific goal 1) and identify whether the elements related to intercultural competence are developed (specific goal 2). The following items aim to analyze how the dimensions of the learning environments influence the development of intercultural competence (specific objectives 3, 4, 5, and 6), further developed in items 6.2, 6.3, 6.4, and 6.5 respectively. Finally, the item 6.6 addresses the specific goal 1, as it aims to understand the graduate's perceptions of intercultural competence in the workplace.

6.1 INFLUENCE OF INTERNATIONAL MASTER'S PROGRAM ON INTERCULTURAL COMPETENCE DEVELOPMENT

Most of the graduates interviewed had an educational background related to the area of business, management, or similar. The main motivator for starting studies in this specific master's course was its international characteristic and design, which allows students to travel to different countries while completing their studies. Among the arguments used to justify their **choice decision**, the possibility to travel came first (six students mentioned it), followed by the professional opportunities that the course offers (three students mentioned it), and having the opportunity to meet and interact with people from different countries and cultures (two students mentioned it).

Student 10 illustrates some of these aspects. "[I decided to join the program] because of the option you get to travel to different locations and at the same time meet people from different backgrounds, which was very interesting for me" (S10). As Fantini (2005) argues, contacting people from different countries, cultures, languages, and backgrounds benefits the development of intercultural competence, a crucial attribute in global business (SPITZBERG; CHANGNON, 2009).

According to the program managers interviewed, the very architecture of the program and the partnership with different higher education institutions around the world are part of upstream strategic actions that aim to contribute to the development of intercultural competence of students. This is because the program has partner

universities around the world, with seven campuses in different countries that enable students to interact with other cultures.

Among the **main gains** perceived by taking the program, students cited factors such as getting in touch with people from different cultures almost unanimously (eight students). Other gains were cited by more people but in smaller numbers, such as job opportunities (three students mentioned it) and curricular learning (three students mentioned it). According to one student (S8), "the international exposure, which means that you are forced to move your boundaries, because you speak with people from all over the world that are your classmates. And so it opens your mind and your eyes to see things from a different point of view."

Among the **main weaknesses**, the one that stands out the most is related to the course curriculum (five students mentioned it): it was regarded as "too academic" or with "little connection with the labor market," among others. The second most commented weakness (three students cited it) was related to the communication and organization of the program itself, which can be seen as lacking. This is a point of attention that was also brought up by a program manager (M2). This is a challenge he found that deserves focus in the future, that is, a challenge related to making the teachers more engaged and work together in order to foster more synergy in the program. He said that "coordinating this program is a challenge. If you ask me the question, what would be the next step to take in the program, I would tell you would be to emphasize coordination, that is really the major challenge."

To align the coordination and execution of the program, there are mainly two important structures: the Local Board of Studies and the International Board of Studies. The first takes place internally in each institution and is carried out independently. The second has representatives from all institutions participating in the program in both the first and second year of the program. Interviewee 11 (manager director) explains that

> "[...] the Local Board of Studies includes the local director, the local coordinator and some faculty members aiming to design mainly the contents and the organizational structure locally. But then we also have the International Board of Studies that meets twice a year and is in constant contact in order to make sure that the program as a whole is functioning and offering the best possible experience for students."

The frequency with which the Local Board of Studies meets varies from institution to institution. The International Board of Studies meets twice a year. These

meetings help the managers of the program to coordinate it and discuss both strategic and managerial topics in order to keep running the current processes and introduce new adjustments and improvements.

It is expected that students be able to "demonstrate awareness of key challenges and dilemmas associated with international business and willingness to deal with them" and "demonstrate understanding and critical appreciation of the importance of cultural differences when working in a multicultural environment" at the end of the course, in accordance with the learning objectives and goals of the program that constitute its regulations. These learning objectives are close to the KASA model's expression of components of intercultural competence. Students were asked if they believe that, in general, the program supports and contributes to the development of intercultural competence through the development of KASA elements (knowledge, awareness, skills, and attitudes). To deal with cultural diversity successfully and responsibly, several components must be created (YAROSH et al., 2018).

Students claim that the program's international architecture, as was already mentioned, encourages the growth of intercultural competence. Examples of how the program affects this include the fact that the students live in many nations, may engage with individuals from other cultures, and encounter similar bureaucracy and challenges. Therefore, the program helps to develop this competence beyond the academic curriculum itself by making this experience possible for students. According to them, the overall experience is significant and enriching, as one of the students said: "I believe every project, everything we did in the program, was able to maximize the value of increasing the range and the depth that we have in the cultural differences" (S10).

Yarosh et al. (2018) acknowledge in their research the issue of administrators acting as facilitators of students' intercultural competence development; facilitators are not always aware of the intercultural issues students face. One student in particular addresses this point of view and may be an input for program managers and coordinators: "they take for granted that as they have these students from different backgrounds, these skills [intercultural competence] are going to start to develop" (S9).

This comment suggests that more efforts should be made in focusing on the multiculturalism of the classroom in order to support the development of this competence. One way by which this cultural diversity can be explored is, according to

Mak and Kennedy (2012), by training the teachers in practical techniques for valuing students' different backgrounds, engaging them as expert informants of their own cultures, and facilitating more cooperative interactions. It is a misconception that just because students are studying abroad in a multicultural environment it means they have already acquired intercultural competence (DEARDORFF, 2015). Only to a limited extent can students develop it spontaneously or unconsciously, and significant educational assistance and training are required to build this competence (YAROSH et al., 2018).

In regard to the specific objective of **investigating the students' perception of the program**, the results showed that students chose the course mainly motivated by its international character. The greatest benefit of the experience was getting in touch with other cultures, and the program's greatest weakness was the lack of focus of the curriculum on the labor market, according to interviewees.

Regarding the specific objective of **identifying whether elements related to intercultural competence are developed in the program graduate students**, the findings indicated that, according to graduate students, the program supports the development of intercultural competence elements described by the KASA framework (knowledge, awareness, skills, and attitudes). The international characteristic of the program is described as the main influencer of this support.

6.2 INFLUENCE OF PHYSICAL LEARNING ENVIRONMENT ON INTERCULTURAL COMPETENCE DEVELOPMENT

The interviewed graduates highlighted some physical characteristics of the classrooms that affected the development of intercultural competence. This section contributes to the objective of **analyzing how the physical dimension of the learning environment influences the development of intercultural competence**.

In the first year of the course, there is a difference in how students perceive the physical environment of both institutions. Five graduates (S1, S3, S5, S7, and S10) reinforced unfavorable remarks about one of the institutions, where the physical environment was described as less comfortable, dimly lighted, far from other university buildings, and far from the city, as the Student 7 stated: "In Italy, we had classes in the 'bunkers,' I think it was the only place left. [...] [This is] because there

was no light; not that there was much sunlight anyway, but there were little micro-windows in the ceiling. We were the only ones there, there was no one else."

In contrast, the other institution's classrooms were seen as better furnished, modern, and easier to move between work groups. Having a flexible arrangement in the classroom facilitates dynamics and allows students to feel more comfortable to speak (SILVA et al., 2018). This may help to develop the ability to communicate effectively and appropriately in intercultural contexts based on one's intercultural knowledge, skills, and attitudes, which are key elements in developing intercultural competence, according to Deardorff (2006).

The program managers themselves also recognize such differences between the physical space of one university and the other. Some external factors are cited as reasons for this difference, which may affect the quality of classrooms of the other educational institutions, such as the city's infrastructure, the country's government institutions, and the historical architectural conditions of the educational institution itself. According to the program manager in Italy, "[...] we are quite behind in that aspect, I have to be very honest with you. Our infrastructures are not designed or particularly sound to enhance this process [facilitate the development of intercultural competence]" (M1).

During the interviews, the former students made comments about assigning a specific room in one of the institutions where it would be possible to have flexibility with the furniture. This may make it easier to conduct some activities. Room sizes and furnishing, according to Closs et al. (2021), influence students' learning experience. One of the program managers (M2) highlights that the physical learning environment alone is not enough; the activities conducted in the physical space and the very interactions between people make the physical space better: "to me, it is a combination of the physical space, but also the activity you conduct in this physical space [...]. The physical environment helps, but also the way we interact helps us to make a better use of this physical environment" (M2).

Both teachers interviewed agree that structure rigidity may impact student interaction and collaboration. Therefore, it may exert a direct influence on the development of intercultural competence. The arrangement of furniture in the classroom has a big impact on how successfully groups interact with one another (SILVA et al., 2019). As a professor mentioned: "[...] basically, if the structure is rigid, like the tables are nailed on the floor, obviously, you cannot organize a free interaction

because you cannot move around and put together desks for teamwork and so on" (P1). Another professor adds: "sometimes it is not that easy to move furniture around, so when they have to discuss in groups, they are in a way stuck and not very comfortable" (P2).

One of the students says that the structure of classrooms still follows a traditional pattern because the furniture is previously arranged and the infrastructure of the classroom itself is designed for a lecture format, where the teacher is the primary communicator and the students act more passively as listeners. According to Silva et al. (2019), there are different alternative learning spaces, especially when it comes to putting theory into practice; they are crucial in a professional master's degree program, more specifically in one that aims to develop intercultural competence.

The cooperative learning environment encourages thinking on cross-cultural issues, and the learning unit provides significant intercultural learning stimulation (BUSSE; KRAUSE 2015). Despite the negative aspects of furniture and physical structure of classrooms noted by the interviewees, one of the professors (P2) addresses the importance of the physical space for the learning process, where students learn through observation and sharing of ideas. For students, teachers, and program managers, the physical space is an environment for socialization and collaboration among students. One of the professors (P2) states "[...] I think space is very important because, especially in my experiment, I find that a lot of students learn by observation. So the fact that they have to go to school every day, and share the same space, share the same environment, is of extreme importance."

The interviewees confirmed that the physical learning environment is crucial for the learning process and the development of their own intercultural competence, as it supposedly encourages dialogue and collaboration between students and professors. The institution's infrastructure, combined with pedagogical and social factors, influences their satisfaction and learning (SILVA et al., 2021). The adult learning process is characterized by cooperative and collaborative connections, which include knowledge exchange, social interactions, mutual support, and assistance in the learning environment (SILVA et al., 2021). Therefore, the international characteristic of the program demands this kind of space. "So the physical environment is important, and it basically helps to improve, it helps to engage in discussions, to engage in thinking as well, and therefore in developing [intercultural competence]" (M2).

One of the students (S6) mentions the distribution of colleagues inside the classroom as a sensitive topic. People of a same nationality prefer to cluster together, sit together, and do group projects together. This prompts us to consider how socialization functions in a multicultural setting enabled by the physical learning environment and that may have an effect on how well students develop their intercultural competence. Students of various nationalities may find it challenging to establish friendships since students from a same country prefer to sit together and speak in their own language whenever possible, according to research by Clos et al. (2021).

In addition, face-to-face classes implies other points of contact between students and professors that go beyond the physical structure of the classroom itself. The actual commute to class and the moments of pause between one subject and another are also opportunities favored by the physical learning environment. As one of the students said,

> "It is really important to be face-to-face because if we are online all the time, we cannot have this exchange, because sometimes most of this exchange is not in the class itself: it is in the hallway; when you leave together, you go around, you build friendships, that's when you really have this cultural exchange" (I9).

According to Ng (2021), the physical environment also plays a significant role in online distance learning in higher education. This space also impacts the student's learning in an international master's program, as well as his or her social interactions and the development of intercultural competence, and may act as a facilitator or a hindrance to this process. In this case, when students who took online classes were asked about what the physical environment was like while they were taking the courses – whether there were distractions, whether the location was comfortable etc. –, they raised some important issues. Noise, lighting, and movement, in particular, may have an impact on online learning (NG, 2021). Issues related to internet connection, external noise, and other factors impacted the quality and level of learning during online classes in the master's program. Learners' access is limited by Wi-Fi access points, their cellular data packages, among others (NG, 2021).

A student mentioned that it "was horrible because the facilities, the dorms that the university suggested, had really bad internet" (S9). Another one highlighted that "you are not able to concentrate and give your 100 percent" (S10).

Although they were not asked directly, managers and program faculty interviewed did not raise any issues or concerns related to the physical learning environment for students participating in online classes. While research has been done regarding online education, little attention has been paid to where students learn and how the physical and social features of the physical environment promote and limit learning activities (NG, 2021). In any case, the physical environment indeed affects the other dimensions of learning environments (SILVA et al., 2021).

According to the specific objective of **analyzing how the physical dimension of the learning environment influences the development of intercultural competence,** the findings show that the physical learning environment is an important setting for the development of this competence. This is because physical space may be a facilitator or a barrier to interactions with other students or professors and may help or hinder the concentration and performance of the proposed pedagogical activities.

6.3 INFLUENCE OF THE TECHNOLOGICAL LEARNING ENVIRONMENT ON INTERCULTURAL COMPETENCE DEVELOPMENT

The objective of this section is to **analyze how the technological dimension of the learning environment influences the development of intercultural competence** by addressing the graduate students' experiences with the technological learning environment within the master's program.

Students reported few experiences in relation to the technological learning environment. Only two students, S9 and S10, had online classes. The vast majority of respondents did not take classes in an online format and their experience with the digital environment was little explored by the program. The online learning experiences were related to FieldWork (fieldwork group in a company) and other general group activities, as Student 6 mentioned: "we did the fieldwork basically all online because we were not in the same place anymore."

In both cases, students used collaborative tools such as *Google Drive*. Students who took the online class participated in the master's program during the years impacted by the Covid-19 pandemic. In these cases, the online classes were viewed in a negative light by students in terms of developing intercultural competence. According to Warger and Dobbin (p. 8, 2009), "the effectiveness of a learning

environment lies in learning outcomes, a focus on people should center on the student experience." Because technology resources have an influence on students' emotions and their social relationships, pedagogical preparation that considers all factors is required for students to feel more engaged and motivated (SILVA et al., 2021).

A students said she believed "this online part makes it more difficult to develop this (competence) because it is easier when you sit next to other people" (I9). Poorer impressions of virtual learning are likely influenced by the restricted opportunities for social engagement and the challenge of maintaining authenticity in the practical course components (FINLAY et al., 2022). Because there is little to no interaction during online classes, students have a poor opinion about the virtual world. As student 10 (S10) affirmed: "I would say it definitely has a negative impact because this is a program where we can interact with each other. [The online lessons] were like listening to a Podcast" (S10).

As we pass the survival step of remote teaching and learning due to confinement, Martín et al. (2021) claims that it is critical to shift to a successful step of teaching, learning, and teacher education. According to a professor interviewed (P2), the current online environment she experienced does not provide the same benefits as the physical learning environment; it has more disadvantages than advantages. As a result, opportunities for interaction with peers are lost, and students are demotivated. Strengthening the development of competencies is a characteristic of digital pedagogy, which needs a methodological approach that reflects the problems of the digital age (MARTÍN et al., 2021).

One of the management directors' impressions about online classes was that "it is definitely not enhancing either the learning process nor the intercultural, the inclusion, the diversity understanding that we are talking about today" (M1). However, professors do not explore technologies other than video conference software or asynchronous videos, which leads to a limitation of resources and of the learning experience itself for students. To ensure the quality of learning, technology should be used to improve the learning process and should be paired with an effective educational structure (LIMA et al., 2020). Some technologies provide such a support, as expressed by one of the professors: "I like *Zoom* because you have breakout rooms. And you can share documents, videos and so on. So, that is enough for me" (P1).

According to Martín et al. (2021), for instance, teachers should be trained in visual and audiovisual resources, which are active methodologies essential for

methodological improvement in a virtual environment. This lack of diversification in tools and methodologies used in the virtual learning environment is clearly perceived by one student. She claims that in order to develop intercultural competence, other tools or techniques could be used to support peer interaction: "it could be developed if we interacted more, but some teachers lack the skills to do the learning online, because there are a lot of tools, like *Hands up*, *Whiteboard*, but some of them do not know how to use them" (S9).

Hannafin and Land (1997) state that technology-enhanced, student-centered learning environments are alternative approaches for different learning goals. The issue is the recognition of foundations, assumptions, and methods appropriate to specific learning goals and cultures. However, one of the program managers talks about the issue of how to make the most out of online platforms in order to reproduce in this environment the same activities that are conducted face-to-face: "[...] what I do in my creativity workshops, we use Lego, we use cardboards, we sometimes use playdoh, we use all kinds of things, so the question is: if we move from a physical environment to a virtual one, how can we make this work?" (M2).

It is also understood that the adaptation from classroom to online classes was exclusively done due to the Covid-19 pandemic crisis. COVID-19 accelerated the transition to a digitized university through online procedures and applying new pedagogical models and learning environments, requiring the full use of communication technology as a measure of organizational agility (MARTÍN et al., 2021). Therefore, the adaptation of the program's activities occurred in a reactive way due to the context of the world situation: "we worked kind of surprised by the situation" (M2).

Considering the very nature and architecture of the international master's program, where students must travel to different locations and experience different cultures, the digital environment is not adequate. According to managers and former students who were interviewed, the program's unique selling point and value proposition are related to interactions in the classroom and to global mobility, as interviewee 11 stated: "I am not 100 percent a supporter of online education in programs like ours. I think the value proposition is different" (M1).

The program's digital learning environment seems to be nonexistent when not in extraordinary contexts and conditions, such as the COVID-19 pandemic, according to the analysis of the interviews. This may help other program managers and

professors to see promising changes in this scenario, as interviewee 11 says: "I think online is an opportunity given the situations we have been facing in the past two or three years. It is definitely an opportunity. Better that than nothing" (M1). Thus, incentives to digital platforms and the use of technology in the classroom should be institutional strategies that could help to improve the program (LIMA et al., 2020).

Regarding the objective of **analyzing how the technological dimension of the learning environment influences the development of intercultural competence**, the results show that, at the moment, the program's technological learning environment may not be positively influencing the development of intercultural competence in students. This is mainly because the environment is almost non-existent, and when student experiences in this environment actually happen, they usually do not provide interactions between students or engage little in the development of competences.

6.4 INFLUENCE OF PEDAGOGICAL LEARNING ENVIRONMENT ON INTERCULTURAL COMPETENCE DEVELOPMENT

This section aims to **analyze how the pedagogical dimension of the learning environment influences the development of intercultural competence**. It addresses student perceptions about pedagogies, methodologies, and activities adopted by teachers within the classroom that could support the development of intercultural competence.

The activities most mentioned by students during the interviews were, in decreasing order: group activities in general (six students), dynamics with Lego[2] (four students), visits to companies or company presentations (three students), and Markstrat marketing simulator[3] (three students).

Group activities were mentioned, in general, as a positive pedagogical action that favors the development of intercultural competence of students. This happens especially when groups are constituted randomly or following a rule of component diversity, making people from different cultures, backgrounds, and genders interact

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[2] This group activity is part of the Business Innovation class, where students need to prototype an innovative product to solve a business problem.
[3] This is a digital simulator with which students aim to strategically position a company and its products, test theories, and make marketing decisions.

with each other. This was highlighted by student 8: "when you have to study together and do group work you are forced to know other people, your classmates" (S8). According to Mak and Kennedy (2012), cultural experiential learning activities develop students' intercultural communication skills, which are necessary for dealing with individuals from other cultural backgrounds and achieving educational goals of curriculum internationalization.

Group activities are also commented on by the professors and managers of the program. One of them points out how their applied activities raises elements of cultural awareness, which is one of the elements involved in intercultural competence. A person who is interculturally competent is aware of their own culture and of the other's (HILLER; WOŹNIAK, 2009). Without this cultural awareness, students cannot help but react negatively or feel negative emotions when they face "odd" behaviors from others (YAROSH et al., 2018).

The participant professors said they usually try to create very diverse groups in terms of nationality, gender, and educational background. According to the professor (P2), this creates awareness in each individual regarding the different cultural realities and the topics and learning contents that are discussed in her classes.

The program managers mentioned that they consider these team activities as a facilitator to support the development of intercultural competence; it is one of the key points of the program. According to one of them, team work activities "exposes you to the possibility of exchanging with students with a different mindset, a different culture, a different way of working. And this, of course, to us, is a great enrichment, which will consolidate awareness and definitely will enhance leadership skills in understanding and embracing diversity and inclusion" (M1).

However, one student also commented that group activities are carried out excessively, which ends up causing dissatisfaction since the focus on the learning objective was often lost:

> "Activities are OK, teamwork is OK, but at a certain point you just start to get fed up. We were all fed up with teamwork. Sometimes there were too many works. It is fine, but not too many, because at the end you may lose the point of what they are trying to do" (S1).

This underlines the importance of diversifying the activities carried out in the classroom.

Other activities, such as the Lego Ideation, the Markstrat simulator and company visits or presentations, were also mentioned as examples of pedagogical actions that help to develop intercultural competence. The common point between them is the social interaction among people, whether they are the students themselves, alumni, companies, or professors. As one student says, "[it] was cool because it was not only about performing in Markstrat, but also getting to know your peers, and it definitely helped because of how the activity was organized" (S4).

According to Smith and Paracka (2018), the use of different classroom dynamics, such as working in pairs, triads, or groups to aid in processing is paramount for intercultural competence learning facilitators. The authors state that although there is not a single best technique to teach or evaluate multidisciplinary intercultural competence, students learn via both process and content.

The course curriculum itself is also regarded as benefiting and supporting the development of intercultural competence, as the curriculum is linked to international business areas. According to the student 1, "[...] marketing course, law, everything helps to interact with people from different countries." In turn, the objective of developing intercultural competence should be integrated throughout the student's curriculum, with multidisciplinary institutional structures assisting in the learning process (SMITH; PARACKA, 2018).

There was also a polarity; students believed that one institution had a greater level of intercultural competence than the other. According to four of the former students, it happens as a result of practical activities that were conducted. While most of the practical activities were carried out in one of the institutions, the other institution prioritized literature-based learning and used a more conventional teaching approach.

Finally, students generally had favorable opinions of the program's lectures and pedagogies, particularly where those activities support the growth of intercultural competence. However, there are still points of attention that should be carefully analyzed and reviewed. Situations such as the misalignment of learning objective and imposed activities or even the way some classes are conducted were mentioned: "so there was absolutely no link between the activity and capabilities and the knowledge that you wanted to acquire" (S9).

Such situations are not only unfavorable for the development of intercultural competence but for the learning process itself. They negatively impact student experience. Subjects with clear plans, tasks, and relevant information are valued by

students (CLOSS et al., 2021). Moreover, when considering classes in the context of digital learning, the impacts on the quality of activities are clearly perceived by students. Student 9 evidences this:

"I believe that, maybe, professors had these activities and the pandemic caught them unawares. They had planned to be face-to-face and then, given the fact that we had to switch to online, they were not prepared [...]. So, they need to assure that things are on track with the resources available."

During the interviews with students about the pedagogical learning environment, some suggestions for improvement for the program regarding the pedagogies adopted were mentioned: knowing in advance the learning objectives of the activities carried out, more transparency regarding grading, and introducing useful tools and trends for the labor market. As student 10 mentioned: "It would be nice if we could have known beforehand what we were going to do, or why this kind of method is going to be useful."

Two other suggestions are directly related to the development of intercultural competence, such as including the use of business cases that not only cover Europe and embrace the multiculturalism of the students in the program by creating more space for sharing topics among them. According to Martín et al. (2021), there is a challenge for teachers to discover new methods in order to involve students and increase the effectiveness of the learning process that must focus on student understanding, motivation, and participation towards learning competences and problem-solving skills.

Examples of activities and methods that could be put into place include the use of business cases that not only address Europe but are more global and embrace the multiculturalism of the students in the program; in addition, there should be more space and opportunities for sharing topics among students regarding their own cultures. According to Smith and Paracka (2018), because students bring a variety of multicultural experiences to the classroom, it is beneficial to engage by learning about their background and knowledge.

According to Closs et al. (2021), students appreciate actively participating in class discussions and transferring experience and knowledge to their peers, which allows them to learn from one another. As one of the students mentioned (S6), it would be interesting if the classes could invite "students to share something, something

beyond the context, not just the content" in order to influence the development of intercultural competence.

According to the specific objective of **analyzing how the pedagogical dimension of the learning environment influences the development of intercultural competence**, this present chapter shows that classroom activities and dynamics that are most valued by graduate students are related to social interactions. Such pedagogies are positively related with the development of intercultural competence.

6.5 INFLUENCE OF PSYCHO-SOCIAL LEARNING ENVIRONMENT ON INTERCULTURAL COMPETENCE DEVELOPMENT

In order to understand and **analyze how the psycho-social dimension of the learning environment influences the development of intercultural competence,** the psycho-social learning environment of the program was analyzed. The students' social contacts and personal well-being are considered to be parts of their psycho-social environment. The vast majority of students (eight) stated that they had the required support or did not think this was a problem when asked how they felt about the master's degree in terms of their wellness and support from professors and managers. As one of the students exemplifies: "I think they are aware of what it means for some people to be away, alone, and so on… I guess they are helpful for that" (S1).

During the interviews, six students spoke about the housing search. The administration might take some measures to lessen the tension associated with this moment, which is frequently a source of anxiety for students, especially when they move between nations quickly. One of the program managers (M1) has noted this problem and believes that it should be addressed: "I 100 percent agree that in order to facilitate inclusion and avoid culture shocks, you need to create the best possible conditions for students to relocate, which means having a decent offer in terms of housing".

Nine students interviewed also recognize the existence of a safe environment in the master's classes. This is important for exposing diverse opinions, for freedom of expression, tolerance, and better exchanges between students and professors in the classroom. An intercultural inclusive environment provides safe spaces for students,

which help them to properly handle the different cultural contexts in practice (MARKEY et al., 2021). According to the student 9 (S9), there was "really an open space to share our ideas. We felt open minded to try to absorb things from other people."

A professor also talks about her role as a moderator within the classroom in order to promote a safe environment for students. She states: "I see [that] my role as a moderator (...) is to moderate these negative emotions that may appear, and it is very important that students do not laugh at each other so they can feel comfortable to express their opinions. I see this role of the teacher" (P2). According to Markey et al. (2021), teachers must consider techniques to help students feel comfortable and safe in expressing their viewpoints and strategies to prevent some students from monopolizing dialogues.

An issue that is brought up with some frequency at different moments in the interviews and that may have an effect on the well-being of students concerns the existing concentration of nationalities. Due to the program's characteristic of marketing and administration, there is a greater number of Italian and French students. As shown in the previous chapter, over the last five years Italians represented 55.5% of all students in the program, followed by French students with 16.1%. This is because two first-year educational institutions responsible for the recruitment and admission process are located in Italy and France. This causes students of a same nationality to group together more often, possibly hindering the exchange between different cultures, as student 1 (S1) illustrated with an example: "we had to make groups and Italians were with Italians, so that does not help."

The development of intercultural competence also depends on individual willingness. Students highlighted this, and it can be illustrated by the comment of student 2 (S2): "you do not necessarily have to avoid people from your own country or anything, but you should also be willing to be more open to other people. And sometimes I guess that it depends on people." Being willing to get in touch with new cultures and people who are culturally different and having a positive attitude towards them is one of the necessary attitudes for developing this competence (YAROSH et al., 2018).

In order to encourage students to connect with each other, introducing some icebreakers into the classes is beneficial. Learners can so share their cultural norms (MARKEY et al., 2021). According to the authors, to promote intercultural

inclusiveness it is essential to provide students with the opportunity to explore and confront beliefs about diversity and cultural differences.

Social activities outside the course and classroom were cited as an element that really is effective when developing intercultural competence. The program director from France recognizes that social moments happen "outside classes, when you are having lunch together, when you are out together in the evening for a drink or to dance or to do something that has nothing to do with the program" (M2).

One of the educational institutions also actively promotes a few social events. Some of these include student associations, international week seminars, and welcome festivities. The latter is in charge of planning activities and gatherings for the entire community of international students, not only of master's students.

Students also point out friendships they establish as a key component in the growth of this skill. This is justified by the fact that developing relationships with individuals from various cultural backgrounds broadens the KASA model's components: knowledge, awareness, skills, and attitudes. For instance, knowledge of cultural norms of a specific culture requires critical thinking in order to avoid becoming a stereotype, and the skills to change behavior with others by having a better understanding on how it affects other people's feelings (YAROSH et al., 2018).

In addition, all students claimed that they made friends throughout the program. One of the students states: "maybe you have more of this intercultural competence for friendships. It is in the little details that you can see how people think, how people live" (S9). Making international friends is considered a benefit for the development of intercultural competence. This competence is regarded as helpful for both their professional and personal life. The outcomes of developing this competence are perceived by students when interacting with people from diverse cultures. Some examples are being open and receptive to the other, listening before responding to put oneself in the other's perspective, working more easily with individuals other than oneself, among others that exemplify the elements of the KASA model. According to Deardorff (2015), understanding the world from the other's perspective is common knowledge that is developed by those who have developed intercultural competence.

Given the wide range of nationalities represented in this program and the students' international mobility, one manager (M2) asserts that a number of components make up this conducive environment. This assertion is in line with

professor's and managers' perceptions of what is required to create a positive learning environment for students.

Willingness to learn on the part of the student, being an open-minded person, being tolerant, and accepting differences were cited by interviewee 13, who mentions that the physical and digital environments also play an important role in building a positive learning environment:

> To sum up, open mindedness is important for a successful learning experience, but open mindedness also has to exist in a favorable context, and it depends on the people you are working with; it depends on the physical and virtual environment, as you said. And then again, you have to be tolerant and have to help others when needed" (M2).

Promoting the necessary support for students also helps to build a positive environment, according to a program manager, as it supports the students' well-being during their master's degree. It is critical to understand students' vulnerabilities and learning needs, which are frequently not verbalized by them (MARKEY et al., 2021). The program manager believes that "for their [the students'] well-being, you have to create the conditions for them to feel somehow welcomed and comfortable in the environment they are in" (M1).

Graduate students understand that there is a safe place for them to voice their opinions and that they can count on program assistance when they need it. According to them, social contacts occur both inside and outside the surroundings of the master's degree and are a crucial element for the development of intercultural competence. Therefore, results show that the psycho-social learning dimension of the program positively **influences the development of intercultural competence**.

Finally, the students' perceptions about the development of this competence outside the master's degree were questioned. The advantages and perspectives of such competence for the global job market, to which students must transition after completing their studies, is addressed in the next chapter.

6.6 THE BENEFITS OF INTERCULTURAL COMPETENCE IN THE WORK LIFE

In order to understand **graduates' perception about the multicultural learning environment impact on the development of intercultural competence**

and possible benefits from it, this section explores the student's perception of intercultural competence valuation in the global job market and whether companies value this in their employees or potential candidates. Public expectations are shifting, and there are some concerns over higher education regarding its capacity to satisfy labor market demands (WARGER; DOBBIN, 2009).

Half of the students' answers were positive. They think that intercultural competence is perceived and valued by companies, as exemplified by student 5 (S5):

"I think that it has value, and it is very important nowadays, for instance, the fact of working together with people from around the world with different cultures and sometimes even different time zones; so it is good to learn how to work in that way to accept other cultures."

Lloyd and Härtel (2010) claim that people almost certainly work in culturally diverse work teams at some time throughout their careers, both now and in the future. According to the authors, it is clear that intercultural competence encompasses a variety of abilities, knowledge, and behaviors that promote fruitful relationships between people from different cultural backgrounds.

However, according to the other half of students, it also greatly depends on the country in which the company is, the job position itself, and the market in which the organization is inserted. There may be differences in how various social groups perceive intercultural competence, important qualifications, and employability (BUSCH, 2009). According to student 1 (S1), "it always depends on the job, on the company and the market [...]; for example, in China it is important, but everybody has it, it is not like something like an added value; it is because they expect you to have it."

Also, depending on the reasons, having intercultural competence may not be seen as a skill that organizations value but rather as something that modern employees should anticipate. Employers regard intercultural competence as a vital part of a person's core competencies (BUSCH, 2009). A student shared his personal context to exemplify his point of view: "Auckland [...] is one of the most multinational or intercultural cities in the world. So, in some ways, it is not very hard for them [companies] to find diversity or intercultural competence to some extent anyway, because it is already such a diverse country" (S2).

Two interviewed students (S6 and S7) added that companies perceive intercultural competence when employees realize the nuances of working with people

from different cultures and that they must understand one another's perspectives in order to complete their tasks successfully and address the various needs of people or businesses from other cultures. Intercultural competence helps people to recognize cultural differences much faster and thus show good attitudes towards other people.

The value of this competence, however, still depends on numerous other factors, according to students, even though the workplace of the 21st century is diverse and employers are increasingly highlighting the importance of employees' intercultural skills and ability to work successfully in diverse teams (DEARDORFF, 2015). Therefore, the context of the company itself, the type of work, factors external to the company, among other aspects may impact the valuation of such competence.

In order to complement the initial box presented in the theoretical review, the table below was built adding the main results extracted in the analysis of the interviews conducted.

Specific objectives	Theory	Main authors	Main Results
Analyze graduates' perception about the multicultural learning environment impact on the development of intercultural competence and possible benefits from it	Intercultural competence	Deardorff (2006); Markey et al. (2021)	The program's international characteristic and design, it is seen as great value and supporter of developing the intercultural competence; Getting in touch with people from different cultures is the main gain of the program; The context of companies, the type of work, external factors, among other aspects impact the valuation of such competence by the global market.
Identify whether elements related to intercultural competence are developed in graduates in a multicultural learning environment	Intercultural Competence; KASA Model	Deardorff (2006); Yarosh et al. (2018)	Elements from KASA framework (knowledge, awareness, skills, and attitudes) were cited by student as examples when developing such competence.

Analyze how the physical dimension of the learning environment influences the development of intercultural competence	Learning environments	Closs et al. (2021); Silva et al. (2018)	Classrooms that facilitate student mobility and the creation of groups, such as flexible furniture, adequate room size, among others, facilitate interaction between students and favor the development of intercultural competence.
Analyze how the technological dimension of the learning environment influences the development of intercultural competence	Learning environments	Closs et al. (2021); Silva et al. (2018)	Environment is almost non-existent and, when it does, usually do not provide interactions between students or engage little in the development of intercultural competence.
Analyze how the pedagogical dimension of the learning environment influences the development of intercultural competence	Learning environments	Closs et al. (2021); Silva et al. (2018); Santiago, Silva (2021)	Classroom activities that are most valued by graduate students are the ones with social interactions among students. Such pedagogies are positively related with the development of intercultural competence.
Analyze how the psycho-social dimension of the learning environment influences the development of intercultural competence	Learning environments	Closs et al. (2021); Silva et al. (2018); Markey et al. (2018)	There is a safe place for students to voice their opinions and that they can count on program assistance when they need it. Social contacts are a crucial element for the development of intercultural competence.

7. CONCLUSION

The objective of this study was to understand how learning environments influence the development of intercultural competence in an international management master's program by analyzing students' perceptions about the program, its elements of intercultural competence and how each learning environment influences development. This last chapter discusses and synthesizes some of its main contributions, implications for practice, and suggestions for future studies. Below, the specific objectives are listed and the respective results obtained in the analysis of the study are presented.

- **Analyze graduates' perception about the multicultural learning environment impact on the development of intercultural competence and possible benefits from it**

As a result of the interviews, graduate students understand that the program has an impact on the development of intercultural competence. The impact arises from the international characteristics of the program, which is the main motivator for choosing this master's program. However, developing this competence specifically is not regarded as intentional on the part of the students. In turn, in order to develop this competence, it is necessary not only willingness by the student but also the support and considerable effort of the program, managers, and teachers (YAROSH et al., 2018).

The respondents stated that the exposure to different cultures was the experience's greatest strength and that the program's main weakness was the lack of a strong emphasis on the job market in the curriculum. Furthermore, the graduates understand that the valuation of this competence by the global job market depends on many factors. It can be valued, devalued, or simply regarded as an already expected basic personal characteristic.

- **Identify whether elements related to intercultural competence are developed in graduate enrolled in the program**

As the international master's program in this case study takes place in different countries and there is a great diversity as for the nationality of students, graduate students understand that it enables them to develop this competence through the elements of the KASA framework (knowledge, awareness, skills, and attitudes). In general, this means that due to its own international characteristic, the program helps students to develop knowledge about different cultures, awareness of cultural aspects, skills for appropriate behavior with cultural diversity, and attitudes such as ways of thinking and open-mindedness.

The KASA elements were also cited by graduate students in other times during the interviews as a way of exemplifying how the competence was developed while in the program.

- **Analyze how the physical dimension of the learning environment influences the development of intercultural competence**

The learning environment dimensions of the master's program were perceived by students through different perspectives of influences in the development of intercultural competence.

The **physical learning environment** of the program resulted in different perspectives. According to the students interviewed, it may or may not have a positive impact on the development of intercultural competence, depending on how the classroom is set up. Therefore, the organizers must take environment into account to promote a comfortable setting that facilitates collaboration, interaction, and the accomplishment of classroom activities.

- **Analyze how the technological dimension of the learning environment influences the development of intercultural competence**

Regarding the **technological learning environment**, it does not positively influence the development of intercultural competence in students since the environment is almost non-existent or does not engage the development of such competence. The issue that was frequently brought up by most interviewees concerns the collaboration and interaction among students, which hinders the development of intercultural competence and the learning process itself. To encourage social

interaction, virtual learning environments must actively include students and need to be offered through coordinated strategies to ensure the constant use of learning technology (FINLAY et al., 2022). The technological environment, therefore, need not be all-encompassing, but it can be used to diversify and simplify certain activities, and learning to use programs and systems is useful for the labor market.

- **Analyze how the psycho-social dimension of the learning environment influences the development of intercultural competence**

Regarding the **psycho-social learning environment**, students are satisfied with the support offered by the program regarding their well-being. The friendships among students, especially considering the existing cultural diversity, and social contacts both inside and outside the program favors the development of intercultural competence among them. According to Deardorff (2015), the overall external outcome of intercultural competence is defined as appropriate and effective intercultural behavior and communication.

- **Analyze how the pedagogical dimension of the learning environment influences the development of intercultural competence**

Concerning the **pedagogical learning environment**, activities that involve teamwork or peer interactions are the ones that generate the most engagement and to which students were able to relate to the development of intercultural competence. Currently, there is no class or theory content in the program that explicitly or intentionally addresses this competence.

Contributing directly to the development of this competence connects students with the program's objectives and is regarded as a benefit for students. Intercultural competence is assessable in concrete learning outcomes (DEARDORFF, 2015) and therefore should receive greater attention in order to purposefully help its development. Higher education institutions must establish and adjust their strategy to institutionalizing intercultural competence (SMITH; PARACKA, 2018). The benefits of doing so may have as a basic premise the formation and development of soft skills for students and prepare them for the global job market.

7.1 Practical implications

As detailed in the program regulations, one of the learning objectives and goals of the international master's program examined in this study is to help graduate students to understand and critically appreciate the importance of cultural differences when working in a multicultural environment. The development of intercultural competence in students, in turn, may be related to this goal and may take on greater proportions in the future.

Based on the data gathered through this study, some recommendations are given by the author to the managers and professors of the program to contribute to the development of this competence in the students. Such recommendations are in line with the opinions and perceptions of the ex-students interviewed and can be found listed below.

Suggestions for improving the program's learning environments and for contributing to the development of students' intercultural competence include the diversification of pedagogical activities that support and encourage social interactions between students and professors; the standardization and improvement of the physical learning space, which makes it possible to move around, facilitates communication, and encourages collaboration between students and professors; greater direct approach to specific academic topics related to culture, intercultural competence, and other soft skills; more practical activities that elucidate the day-to-day life of a professional in a multicultural work environment, building on the elements of the KASA model; empowerment of students to take advantage of the collective cultural intelligence of the classroom itself through seminars or specific discussions about the particularity of each one; exploring case studies of cultures not exclusively European seeking to broaden the students' world view and, consequently, intercultural competence.

7.2 Limitations of the study

As limitations, no specific studies were found in the literature that directly relate learning environments to intercultural competence. Furthermore, the fact that the author of this study is part of the master's program in question can be seen as a limitation of the work since biases may exist in the analyses.

7.3 Suggestions for future studies

Regarding the development of intercultural competence in higher education institutions, future studies should discover to what extent and which elements of the KASA model students developed the most during the program. This would require a quantitative survey that evaluates the student's perception of themselves in relation to the elements included in intercultural competence. An evaluation process could be imposed at the beginning and at the end of the program for students to evaluate themselves in relation to intercultural competence by asking them about the development of each element included in the KASA framework (knowledge, awareness, skills, and attitudes).

According to Deardorff (2006, p. 259) the "use of pre- and post-tests in assessing intercultural competence have a direct impact on the international education field". Therefore, it is important to focus on the process of development itself, as it is also critical to concentrate on evidence or indicators of change in learners as a result of learning intercultural competence (SMITH; PARACKA, 2018).

For future studies, it could also be of great value to understand in more depth how the Covid-19 crisis impacted the development of this competence in multicultural learning environments and the main outcomes from that.

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APPENDIX

Consent Form: https://forms.gle/kLUjFdAm3ywVT32y9

Interview script with Alumni students:

1. When did you join the program?

2. What was your previous education before starting the master's?

3. For what reason(s) did you decide to enroll in this master's program?

   What were the greatest "gains" in participating in the program?

   What were the weaknesses/shortcomings of the program?

4. In my research, I consider that intercultural competence is essentially about strengthening human interactions across differences, whether inside a society or across borders (DEARDORFF, 2020). Regarding competence, there are several elements that can be considered. Knowledge means the necessary information and facts that contribute to deal with cultural diversity. Awareness is being aware that people are different and conditioned by their cultures, as well as being aware of cultural aspects of others and oneself. Skills are the necessary behavior elements to deal with cultural diversity. Attitudes are modes of thinking, feeling, and connecting to cultural diversity.

5. How do you see the program helping in the development of your intercultural competence? Do you remember any specific activity or procedure that contributed to it? Do you have any examples to share?

6. When it comes to the physical learning environment (classrooms, furniture, facilities), how was your experience? How do you think it has influenced the development of intercultural competence? Why? Positively? Negatively (what could be improved)?

7. Regarding the technology used in the virtual learning environment, how was your experience? Have you taken online classes?

   If yes, how often? What did you think about the online classes you took? What was your physical environment like when you attended the online class?

   If not, did you use any digital devices?

8. How do you think the virtual learning environment has influenced the development of intercultural competence? Positive/negative aspects.

9. Regarding classes, what do you feel about the pedagogies adopted? (such as learning resources, learning activities, feedback, and assessments).

   Do you think pedagogies helped the development of intercultural competence? If so, what, specifically? If not, why? What could be improved?

10. How do you feel about your well-being during the period you were pursuing your master's degree in this international context?

Did you have a positive support from program managers? And from your teachers? Was there a safe environment to participate in all the program's activities?

11. How did you feel about your social interactions? How do you think your sharing among students and teachers and collaborative work opportunities were? Have they helped you develop an intercultural competence? How? Why? Positive/negative aspects.

Did you make any international friends?

Making international friends helps to develop intercultural competence? How?

12. Is there anything else you would like to add?

Interview script with teachers:

1. Can you tell me about your history with the program?

What subject do you teach?

How long have you been a teacher in the program?

2. In my research, I consider that intercultural competence is essentially about strengthening human interactions across differences, whether inside a society or across borders (DEARDORFF, 2020). Regarding competence, there are several elements that can be considered. Knowledge means the necessary information and facts that contribute to deal with cultural diversity. Awareness is being aware that people are different and conditioned by their cultures, as well as being aware of cultural aspects of others and oneself. Skills are the necessary behavior elements to deal with cultural diversity. Attitudes are modes of thinking, feeling, and connecting to cultural diversity.

3. How does the program help in developing intercultural competence? Explanation, examples.

4. How do you see intercultural competence as an advantage in the global job market?

5. What aspects of your subject/class do you believe foster the development of intercultural competence? And the program? And what do you think stands in the way of the development of competence?

6. What activities, actions or methodologies are used in the classroom that can contribute positively to the development of intercultural competence in students? Provide examples.

   What could be improved?

7. How did you experience the use of the physical space in the classrooms (lecture spaces, furniture, use of technology, and devices)?

   How did the space contribute to the development of intercultural competence of students? How could the spaces be improved?

8. Regarding virtual learning environments, have you taught online classes? How often? And which digital tools did you use? How do you think this has contributed to the development of intercultural competence?

9. What do you consider essential to constitute a positive learning environment for international students? How do you feel the students' well-being was in the subject (positive support, safety environment, positive emotions)? How could it be fostered? How did it mitigate the students' learning experience?

10. How do you feel the social interactions (sharing among students and teachers, collaborative work, opportunity to develop friendships) were present in the subject? What could have helped the development of intercultural competence? What did not do it? What could be improved?

11. Overall, what are the challenges in teaching a multicultural class and at the same time helping them develop intercultural competence? What do you think should be improved?

12. Is there anything else you would like to add?

Interview script with program managers:

1. Can you tell me about your role in the program?

   How long have you been in this role?

2. In my research, I consider that intercultural competence is essentially about strengthening human interactions across differences, whether inside a society or across borders (DEARDORFF, 2020). Regarding competence, there are several elements that can be considered. Knowledge means the necessary information and facts that contribute to deal with cultural diversity. Awareness is being aware that people are different and conditioned by their cultures, as

well as being aware of cultural aspects of others and oneself. Skills are the necessary behavior elements to deal with cultural diversity. Attitudes are modes of thinking, feeling, and connecting to cultural diversity.

3. How does the program help in developing intercultural competence?

   What aspects of the program do you believe foster the development of intercultural competence? Provide examples.

4. What kind of strategic actions are taken that directly aim at developing the intercultural competence of students? Do you have any examples? Is there a need to improve?

5. How do you perceive your role contributing to the students' development of intercultural competence?

6. What activities, actions or methodologies are used in the classroom that can contribute positively to the development of intercultural competence in students? Give examples.

7. Regarding the physical space in the classrooms (classrooms, furniture, facilities), how does it contribute to the development of intercultural competence of students? How could the spaces be improved?

8. Regarding virtual learning environments, what do you think about online classes? How are online classes being implemented and conducted in the program today? How has the virtual learning environment contributed to the development of intercultural competence? And what might have gotten in the way?

9. What do you consider as essential to constitute a positive learning environment for international students?

   And how is the students' well-being taken into account? (positive support, safety environment, positive emotions) What kind of measures are taken?

10. How are the social interactions in the program? (sharing among students and teachers, collaborative work, opportunity to develop friendships)

    What could help the development of intercultural competence in the social context? What does not help it?

11. Overall, what are the challenges in managing an international master's with such a multicultural class? What do you think should be improved?

12. Anything else you would add? Any suggestions?