

# Digital arts-based collaborative learning in management education

## Abstract

Collaboration, creativity, and self-efficacy are extremely important skills for students pursuing careers in management; these skills can empower them to overcome setbacks and obstacles. Pedagogical approach based on digital art collaborative learning can enhance students' skills as they experiment with novel perspectives. Within management education this approach is rare. The aim of this paper is to describe the development, implementation, and evaluation of a digital arts-based collaborative learning project. The project had a cross-cultural nature involving students from two business management courses, one in Italy and one in Hungary. Drawing on the theories of safe transitional space and self-efficacy, students' ability to perform a task in an unfamiliar space is discussed. This digital collage creation project is highly innovative in the business education context and the results support future applications.

**Keywords:** visual arts, collage, cross-cultural, collaborative learning, management, transitional space, uncertainty

## 1. Introduction

Business management courses often propose collaborative learning to simulate real world settings (Gannon, Rodrigo & Santomà, 2016; Rauer et al. 2021). Students who jointly work on product or process development tend to perform well academically (Tan & Vicente, 2019). Indeed, most active learning pedagogies (e.g., problem-based learning, business simulation games, field trips or role play exercises) are collaborative (Ahmad, Abu Baker & Ahmad, 2018; Ertmer & Newby, 2013; Perusso & Baaken, 2020). Successful teamwork depends on the degree to which students apply theories, discuss ideas with peers and instructors and engage in common tasks. Prior research suggests several environments and activities that positively influence students' engagement and make them accountable to each other (Ahmad, Abu Bakar & Ahmad, 2018; Analoui, Sambrook & Doloriert, 2014; Tan & Vicente, 2019). Collaborative learning tasks often aim at enhancing students' creativity (Kariv, Matlay & Fayolle, 2019) and increasing their self-efficacy (Barakat, Boddington & Vyakarnam, 2014). However, tasks that stimulate stepping out students' comfort zone are rare. For example, while almost all students utilize digital communication technologies with confidence, a few use their advanced visual processing skills to approach managerial issues (Karakas, Manisaligil & Sarigollu, 2015). Classrooms, both virtual and physical, can be considered 'transitional spaces' in which students are offered the opportunity to test themselves by analysing challenging managerial issues as in real-life (Kisfalvi and Oliver, 2015). Harrison and Rouse (2014) observed that by providing individuals with autonomy and freedom within clear boundaries, their creativity can be increased. Indeed, boundaries and guidelines rather than limiting creativity provide safety to foster it (Harrison & Rouse, 2014).

Artworks are representations of complex realities and, as such, arts-based learning is increasingly employed in different disciplines (National Education Association, 2014). Arts-based approaches encourage learners to experiment with uncommon perspectives enabling

students to combine theoretical knowledge and personal sensibilities (Mack, 2021; Yang, Ivanova & Hufnagel, 2021). In art education, collage-making -as a reflective visual method- is used to encourage ideas, discuss different topics, and enhance self-expression through imagery (Bertling, 2019). Drawing on Dewey (1933:53), it is suggested that reflective thinking needs to be given space in the learning approach and “good habits of reflection” need to be developed. Dewey argues that until the habit of reflection is well formed, facing a new an uncertain situation requires an effort. Students’ constant reflection on the meaning of the studied information always involves a look into the future. Incorporating lectures with arts-based collaborative learning can strengthen students’ skills as these activities: involve open-ended discovery instead of content learning; encourage personal responses rather than pre-determined right and wrong answers; develop imaginative self-expression; offer spaces for dialogue and help participants to reach consensus (Mack, 2021; Oreck, 2004).

Research suggests that art provides managers with new perspectives on challenging issues, stimulates their creativity and allows for a flexible combination of analytical thinking and intuition in the management of uncertainty (Perusso & Baaken, 2020; Nissley, 2002; Yang, Ivanova and Hufnagel, 2021). In management education, arts-based activities are rare. Collaboration, creativity, and self-efficacy are extremely important for students who are pursuing careers in management and such skills can empower them to overcome setbacks and obstacles (Groves, Feyerherm & Gu, 2015; Marder et al. 2021). Indeed, in most organizations, managerial issues are solved through collaboration and adaptation rather than with the application of ready-to-use solutions (Scott, 2017).

This study was conducted in a virtual environment; it investigates digital arts-based collaborative learning as a novel pedagogical approach in business management education and provides a description of transitional spaces and processes of learning. Arts-based collaborative learning is here defined as: A pedagogical approach that incorporates an artistic/creative assignment which encourages collaborative learning through transitional processes within transitional spaces to increase students’ self-efficacy. The study applies safe transitional space theory (Winnicott, 1989) and integrates arts-based activities in management education. Further, it describes the development, implementation, and evaluation of a digital arts-based collaborative learning in a cross-cultural setting, thus contributing to the discussion on the implementation of fresh pedagogical practices in management education (Ratten & Jones, 2021; Yang, Ivanova & Hufnagel, 2021).

## **2. Review of related literature**

In this study, the term ‘business management education’ refers to higher education courses and programs that focus on any aspect of organization, strategies and communication of businesses (Ahmad, Abu Bakar & Ahmad, 2018). Conventional approaches (lectures in formal learning contexts) are juxtaposed with creative ones (active learning activities) and the benefits and shortcomings of these two pedagogical approaches are much discussed (van Ewijk, Oikkonen, & Belghiti-Mahut, 2020). The combination of these two methods -to develop transferable skills and competences that learners can adapt to the evolving needs of the job market- has proven fruitful. This literature review discusses creative pedagogic approaches to learning.

### *2.1 Collaborative learning*

Collaborative learning is an act of knowledge creation, a process through which students construct their knowledge in collaboration with peers and instructors (Bruff, 2009). Collaboration involves engagement of all participants through the process of interaction that

enables students to develop their individual knowledge. Dillenbourg (1999:1) defined collaborative learning as a “situation in which two or more people learn or attempt to learn something together”. It builds on openness towards others, active empathetic listening, effective communication and reflection on one’s own opinions while working together to reach a common goal (van Ewijk, Oikkonen, & Belghiti-Mahut, 2020). These are key managerial skills.

Working on collaborative projects increases participants’ motivation, learning engagement and sense of personal responsibility (Sunley, Harding & Jones, 2019). Sharing diverse viewpoints and reaching consensus facilitates the internalisation of learning (Ertmer & Newby, 2013; Giel et al. 2021). To complete and deliver a task in collaboration is far from easy. Negotiable interactions -in the form of small group discussions- are relevant within management education to solve problems through collaboration (Arnold, 2021; Karakas, Manisaligil & Sarigollu, 2015).

### *2.1.1 Collaborative learning in virtual environments*

In higher education settings, virtual teamwork is often proposed by instructors to simulate real work environments (Gannon, Rodrigo & Santomà, 2016; Rauer et al. 2021). This involves the use of online platforms and social media networks by geographically dispersed students to perform a task jointly (Irimiás & Volo, 2021). Virtual environments with negotiable real-time interactions simulate managerial contexts. Priority is given to working towards a common goal. Students can choose from different digital devices with which to take responsibility for their working/learning schedule in pursuit of this goal. Making contacts with other students across borders and improving video-conferencing skills in a foreign language are among the benefits of virtual teams (Tan & Vicente, 2019; Rauer et al. 2021).

To foster collaborative learning in virtual classrooms, instructors have to carefully design learning environments and appropriately facilitate interactions. A positive attitude towards digital technologies is also crucial to the achievement of high-quality teaching and learning; this has proven true in the distant learning context imposed by the Covid-19 pandemic (Baber, 2021).

### *2.1.2 Collaborative learning in cross-cultural settings*

Studies confirm that managers need cross-cultural communication skills to effectively collaborate and negotiate with individuals from different cultural backgrounds (Antal & Friedman, 2008; Groves, Feyerherm & Gu, 2015). Following Bennett and Bennett (2004), cross-cultural settings are defined as situations in which individuals with different cultural backgrounds and speaking different languages interact. In cross-cultural classrooms, students’ learning style and communication are influenced by their cultural backgrounds (Lawter & Garnjost, 2021). Most instructors in higher education aim to stimulate students to communicate efficiently and to collaborate in cross-cultural contexts. As documented, students put effort in skills development when they consider them particularly valuable (Azevedo & Shane, 2019). Cross-cultural interaction enhances students’ language skills and allows them to reflect on different viewpoints (Shaftel, Shaftel & Ahluwalia, 2007). Collaboration in cross-cultural settings can lead students to recognize and reflect on the cultural and social patterns behind their assumptions (Hibbert, 2012). Although misunderstandings and uncertainties can constitute obstacles (Tan & Vicente, 2019), learning contexts should provide students with first-hand experience of uncertainty, in preparation for real life situations (Irimiás, Franch & Mitev, 2020). As Rauer et al. (2021) suggested, working in cross-cultural virtual teams appears to develop empathetic listening, collaboration, and creativity. Classrooms in higher education are becoming increasingly diverse, thus they naturally provide safe environments in which students

can learn cross-cultural communication before working in multicultural settings (Antal & Friedman, 2008; Rauer et al. 2021).

## *2.2 Transitional spaces fostering creativity*

Transitional spaces theory (Winnicott, 1989) is highly relevant to the conceptualisation of learning environments. Winnicott observed infants as they played, noting that experiences including some (controlled) risks and uncertainty lead infants to gain greater trust in their abilities to solve specific tasks. Safe transitional spaces were seen as 'in-between spaces' in which children felt safe enough to play and experiment with real life and were exposed gradually and carefully to increased risks (Winnicott, 1989).

The transitional spaces theory was adapted to management education by Kisfalvi and Oliver (2015), who suggested that classrooms are 'in-between spaces' in which students can move from a learning context to real-life situations, craft their ideas and voice their opinions. In fact, a supportive environment strengthens students' psychological safety to take risks (Marder et al., 2021). Risk taking and risk tolerance are important features of the learning process (Bauman & Lucy, 2021). Risks associated with collaborative learning include communication, fear of being judged, making mistakes, the commitment of peers and creativity (Marder et al., 2021). Facing risks in classrooms, both physical and virtual, can enhance students' engagement and academic performance. Students have an active role in learning and providing solutions for project' outcomes, but instructors need to design appropriate and meaningful contexts for learning activities (Kisfalvi & Oliver, 2015; Jones et al., 2019; Marder et al., 2021).

## *2.3 Self-efficacy theory and its application to management education*

In business management, the competence to overcome setbacks is vital. Some people approach difficult tasks as challenges to be mastered, while others view them as potential failures to be avoided (Bandura, 1997; Markman, Baron & Balkin, 2005). Self-efficacy theory (Bandura, 1997) posits that when individuals trust their abilities, they perceive control over adversity and this perception is a major driver of their actions. Individual's cognitive judgement of their personal capacity (self-efficacy) influences their behaviour (Barakat, Boddington & Vyakarnam, 2014; van Dinther, Dochy & Segers, 2011). Self-efficacy builds on vicarious and creative learning experiences when performing specific tasks (Barakat, Boddington & Vyakarnam, 2014).

Self-efficacy theory in management education establishes a link between motivated learning and the belief that competences can be strengthened if an appropriate effort is made (Bandura, 1997). Students with a strong sense of self-efficacy set higher goals and invest considerable energy in accomplishing tasks to which they have firmly committed to and will stay focused on (Giel et al, 2021). Prior research shows that management students need flexible spaces which support meaningful learning experiences, and in which they can take risks and learn to trust their own abilities (Kariv, Matlay & Fayolle, 2019; Karakas, Manisaligil & Sarigollu, 2015).

## **3. Methodology**

This paper used visual arts-based collaborative learning in a cross-cultural setting, focusing on the three themes -collaborative learning, creativity and self-efficacy- identified in literature.

Purpose of the assignment: This project aimed to stimulate students to envision and reflect on the future of tourism from a managerial point of view. The specific task selected by the instructors was based on a research project on tourism and education for sustainability. Current environmental changes call for more research in winter tourism destinations; climate change is unavoidable and younger generations need to reflect on possible consequences. For these reasons, future managers ought to be trained to reflect on apparently distant issues such as the effects of climate change.

Unit of analysis and participants: The total sample consisted of 185 students, 90 Hungarian (Corvinus University of Budapest) and 95 Italian (University of Trento). 86.5% of the participants were female (as are most of the students enrolled on these courses). The students involved were in their second- and third year of study. Students who participated in the project were evaluated as follows: 60% project and 40% final exam. Participation in the project was voluntary, indeed students were also given the option to take only a final exam worth 100% of their grade.

Courses: The Hungarian *Tourism Management* and the Italian *Business Management* were semester-long -13 weeks- compulsory courses, part of the universities' tourism degree programs. Due to the COVID-19 pandemic, the courses were taught online. Both are usually structured according to the logico-rational paradigm, involving lectures, invited guest lectures and short in-class assignments.

Task overview: The task was based on digital arts creation. The students had to collaborate on the design of two collages illustrating their winter tourism perceptions. All students were familiar with the topic. The project aimed to enhance collaboration and creativity within the objective of holistic self-development (Kariv, Matlay & Fayolle, 2019). The instructors outlined the task and prepared the instructions, and then asked a colleague to double-check them. Additionally, two students from another course were asked to read the task description and instructions to verify the intelligibility. Based on the feedback, some elements were redesigned.

Data gathering and analysis: This qualitative research was conducted between the 16<sup>th</sup> of February and the 13<sup>th</sup> of May 2021. Students' feedback was collected in "reflective reports" (one for each student) and additional evidence of the collaborative learning process was collected, by the instructors, throughout the interactions with the students during the timeframe of the task. Dewey (1933) highlighted the value of students' own reflection, seen as a cognitive process enable to improve future decision making. Reflective reports were accompanied by short, informal interviews with students to discuss the project challenges. These discussions provided clarity on the reflective reports. Content analysis was deemed appropriate to examine the reflective reports. To classify, sort and arrange the data, students' reports were uploaded to QSR NVivo 9 a qualitative data management software. Initial coding enabled the identification of emerging concepts. Categories and subcategories were then identified (Bernard & Ryan, 2010; Schreier, 2012) creating NVivo so-called parent codes (for categories) and child codes (for sub-categories), further exploration of meaning was undertaken, and the final analysis ensured that the meaning identified in the textual data was reinforced, connected, verified, and extended within and across the written reports and with knowledge acquired throughout the task with the interaction with students (Bernard & Ryan, 2010; Schreier, 2012). Each author checked the coding process to ensure validity, and the codes and concepts were discussed together for consistency (Harrison & Rouse, 2014).

## 4. Results

The discussion of the results is based on the tenets and constructs of the literature analysed (Marder et al, 2021; Ahmad, Abu Baker & Ahmad, 2018). Findings are structured to: (1) outline the project; (2) discuss the role of learners and facilitators; and (3) present transitional spaces and processes leading to self-efficacy. Aiming at fostering collaboration, creativity and self-efficacy among students, the results of this study are herein presented with a discussion on processes and outcomes.

### *4.1 The project*

This section includes an outline of the project, assignments, and deliverables. Findings show that the desired managerial competences -collaboration, creativity, self-efficacy- were achieved.

#### *4.1.1 The collaborative digital art-based task*

Creativity is an important skill in business management. Arts-based collaborative collage techniques are particularly suited to strengthen creativity. The digital collage making was developed to enrich the learning process based on pleasurable interactions. Canva software [www.canva.com] a free, easily accessible, user-friendly tool was selected because it offers templates for posters suitable for collage making, provides different sources for visuals and generates comparable and tangible outputs. A tutorial was organized to reduce learners' cognitive load and any potential stress related to the use of a new software. The functions, modalities, and the user interface of the software were demonstrated. The 20-minute tutorial was deemed necessary to enable the students to use the software productively and time efficiently. Students were free to elaborate their ideas and to create meaning through active participation using a wide range of visual materials. In the two collages, students had to present their groups' perceptions of winter tourism. The choice of composition, framing, and colours was left to the students.

Most management curricula do not include any artistic production thus the students had to overcome their doubts about their own creativity. The examination of the collages revealed that the students had contextualised the issue, envisioned the project and shaped their perspectives using their individual knowledge and creativity.

#### *4.1.2 Task phases*

The assignment was done in the second semester of the a.y. 2021/22 (13-week) and consisted five phases. Before the assignment began, the instructors invited all participants (n=185) to an active coaching session on Zoom. The Zoom meeting was held in English and was recorded so that the students could rewatch the video. The instructors introduced the Hungarian and Italian students to each other to facilitate cross-cultural communication and to create a positive atmosphere. The instructors were the moderators, acting as a bridge between the students from different cultural backgrounds (Table 1). Students were asked to turn on their webcams to ease interaction. The Zoom session lasted around 90 minutes and time was dedicated to comments. Content analysis of students' reflective reports showed that students initially perceived the collaboration in virtual and cross-cultural teams as an activity outside their comfort zone, and therefore risky.

#### *4.1.3 Assignment delivery and assessment*

All teams met the deadline and uploaded the collages to the dedicated online platform. The deadline for the assignments was five weeks after the first Zoom meeting. The students were asked to take responsibility for their learning and time schedules. It was also explained that the collage-project would weight 60% of the final grade (see table 1 for the evaluation criteria) and the final exam accounted for the remaining 40%. Evaluation criteria for the collage included: task understanding and completion, comprehensiveness of the visual part and of the reflective report and evidence of collaborative work. In addition, students could provide feedback to their peers, the feedback was not evaluated by the instructor (for grading purposes) but enriched the understanding of the students, their learning and their responsibility and provided insights to the instructors. Students' who decided not to participate in the project had to write a final exam that, in their case, would weigh 100% (total grade). It is noteworthy to point out that students who participated in the project performed better overall than did previous years' students of the same courses. Findings suggest that the better exam results can be explained -at least partly- by both the enhanced student engagement and the safe transitional learning space created during the project.

#### *4.2 Learners and facilitators*

This section describes the students' and instructors' roles in collaborative learning. The relevance of spaces and processes in virtual environments and their ability to generate greater self-efficacy (Bandura, 1997) is discussed, drawing on transitional space theory (Winnicott, 1989).

##### *4.2.1 Learners: the students*

The group assignment was completed in two stages: (1) students were able to choose a conational partner to form a pair, this was done in order to give students a certain degree of ownership of the process (Analoui, Sambrook and Dolorient, 2014), and then (2) the instructors combined the pairs from different nationalities to form the cross-cultural groups. . Filling in a Google sheet, students provided data such as their name, institutional email address and additional spoken languages. According to the spoken language, students from Hungary and from Italy were then assigned to cross-cultural groups (four-five members per group) as to maximise their opportunities to work with learners from a different cultural background. In total, 47 cross-cultural groups were created. Students chose which social media platform to use for in-group discussions, assigned group roles and took responsibility for scheduling and learning (Table 1). In the peer-to-peer assessment, students commented on the collages made by the other groups and were asked to provide informal and constructive feedback to their peers. In addition, students completed the reflective report in which they wrote about their role in the group, any risks taken, and outcomes achieved.

The content analysis of the students' reflective reports confirmed that working with like-minded people positively influenced their level of participation in the project. Findings reveal willingness to work together thus harvesting the benefits of cross-cultural teams. Most teams also organised extra-curricular activities such as chats and online games for fun, and this strengthened group cohesion. Some students also mentioned that they were planning to visit each other once travel bans were lifted.

**Table 1**

Instructors and learners' roles in a weekly schedule of collaborative arts-based learning.

<b>Time frame</b>	<b>Implementation phase</b>	<b>Instructors' role</b>	<b>Students' role</b>
Pre-course	Project planning	Design the collaborative project Select the software Check visual materials on the software	
Week 1	Introduction	Explain the project, schedule and assignments Explain theory and present practices related to the issue	Share and discuss their knowledge and interpretation of the managerial issue
Week 2	Group allocation	Assign the cross-cultural groups Explain guidelines and rules Engage students	Chose a conational to work with and then join assigned cross-cultural groups. Choose the social media platform to use for in-group discussions
Week 3	Software-usage tutorial	Moderate the tutorial session led by an expert Encourage collaborative learning	Share and discuss their reflections and interpretations Making appropriate use of the software
Weeks 4-8	Complete set arts-based tasks	Encourage work development Act as moderators Provide supportive feedback	Assign group roles Take responsibility for scheduling and learning, and for completing the task Reflect on the group work and complete the reflective report
Weeks 9-12	Student interaction among groups	Moderate class presentations and discussions Facilitate knowledge co-creation	Present the collages Comment and reflect on peers' work Jointly reflect on their own work Groups provided feedback to their peers, that consisted of informal and constructive suggestions and comments
Week 13	Assessment	Course works weighs: 60% collage, 40% final exam. For students who did not handle in the college the final exam weighted 100%. Evaluation criteria for the collage included: task understanding and completion, comprehensiveness of the visual part and of the reflective report and evidence of collaborative work.	Although peers' feedback was not assessed, it provided students with advice as to adapt their understanding of theory and practices.

#### 4.2.2 Facilitators: the instructors

The instructors designed the collaborative project, created a supportive learning environment, decided on the cross-cultural groupings, explained the task, encouraged work development and were available for further clarifications (Table 1). This allowed learners to relax, be creative and express their personalities while working on the task. - Instructors responded reasonably quickly to students' doubts as students -in compulsory distance learning- needed extra stimulation to put real effort into their course assignments as to minimise procrastination. This feedback increased students' concentration on the arts-based activity, and encouraged them to dare, create, and develop their perceptions on the managerial issue at hand. The overall course assessment was based on the assessment of the collage (60%) and of the final exam (40%). In particular, the instructors evaluated the collage project as follows: task understanding and completion, comprehensiveness of the visual part and of the reflective report, and evidence of collaborative work. The instructors also reflected on their own experiences. Considering the time and effort needed to implement the project and the students' achievement of learning outcomes, it was concluded that the benefits of this creative assignment outperformed the efforts.



#### 4.2.3 Group collaboration, instructors' interventions and self-efficacy

Collaboration and the ability to work in virtual teams are necessary management skills. Unexpected complications and uncertain situations can easily occur in virtual teams in cross-cultural settings. For these reasons, students need to trust their own abilities, qualities and judgements in order to deal with challenging situations. Students' self-efficacy and sense of empowerment were strengthened by the collaboration. According to Bandura (1997), perceived adversities are major drivers of actions. In the reflective reports, students described their difficulties and explained the way they managed them. Table 2 summarizes the coding of the reflective reports, and shows data as divided into categories (type of challenges) and subcategories (perceived difficulties). *Ad verbatim* citations reveal what students did to overcome setbacks.

**Table 2**

Different types of setbacks perceived: results from content analysis.

Type of challenges	Setbacks perceived by participants	Solutions to overcome such challenges explained by the students
Communication	language barrier	<p><i>"We were a little bit afraid because of the language barriers, but it was easier to overcome them than we thought."</i> [Hungarian, female]</p> <p><i>"Sometimes it was harder to explain our thoughts in English, but overall we managed to find solutions together."</i> [Hungarian, female]</p> <p><i>"Since the Italians cannot speak Hungarian, and the Hungarians cannot speak Italian, we agreed on using English as a common language."</i> [Italian, female]</p>
	different understanding	<p><i>"At the beginning we didn't really understand each other's ideas but after we show[ed] our photos and explain[ed] their meanings the work went easily."</i> [Hungarian, female]</p> <p><i>"There were parts where we had a hard time explaining or understanding, but in the end, we always found a way to explain it further and make the best out of it."</i> [Italian, female]</p>
	lack of face-to-face meeting	<p><i>"After being paired together, we got to know each other through social media."</i> [Hungarian, male]</p> <p><i>"We created a WhatsApp group to communicate and we organized a Zoom meeting to start working together."</i> [Italian, female]</p>
	cultural barriers	<p><i>"Although we worked online, we learned how to overcome the cultural barriers that one can experience during a multi-cultural project."</i> [Hungarian, female]</p>
Cognitive/ affective	lack of creative work experience	<p><i>"Even though none of us had any experience on the topic and on this kind of creative work we were able to deliver a final project that we are all proud of."</i> [Hungarian, female]</p>
	avoiding the commonplace	<p><i>"First, we gathered ideas together, which took a little bit long, because it was hard not to think about the mainstream pictures"</i> [Italian, male]</p>
	lack of knowledge	<p><i>"This project was a little bit harder for the Hungarian students, because they have never skied before, but with the help of our Italian partners, we could work these two posters out. So the Hungarians discussed their thoughts about skiing while the Italians talked about their experiences. ...we could imagine things together and it was even better, that the Hungarians did not have previous experiences, so they could think differently."</i> [Italian, female]</p>
	initial nervousness	<p><i>"We were nervous before the first video call, but when we got to know each other and started working on the task, we felt very much that we are on the same wavelength with each other."</i> [Italian, female]</p>
Technological /	lack of knowledge	<p><i>"Canva [the software] was a difficult part of the work at first, but working on it and sharing our work right away made it easier."</i></p>

time management	different social media context	<i>"It was extremely unusual for us that our Italian peers preferred WhatsApp, but we were able to contact each other soon."</i>
	different schedules	<i>"we could easily reconcile the date and everyone was very flexible"</i> [Hungarian, female] <i>"We were able to arrange meetings smoothly and respect each other's schedules."</i> [Hungarian, female] <i>"It was a bit hard to find the perfect time to meet, but we finally solved this problem successfully."</i> [Italian, male]

Once the groups had been formed, students were happy to take responsibility for their collaborative learning and task delivery. Content analysis of the reflective reports show that students coped with setbacks, took control, and reflected on their actions. Each group invested a great deal of effort in pursuing their common goal: to create insightful, creative and thought-provoking collages. Thus, with regard to this specific task, it was deduced that even those students who were inclined to give up were able to increase their self-efficacy as part of the group.

### 4.3 Spaces and processes for transitional learning

The implementation of transitional space theory increased the instructors' understanding of virtual learning environments. As shown in Fig. 1 a transitional learning space is created by combining safety and uncertainty factors. This study expands Winnicott's (1989) theory by revealing that these factors are as important in transitional learning processes as are in transitional learning spaces.

#### 4.3.1 Transitional space

As above suggested, findings show that the transitional learning spaces can provide a wide variety of safety and uncertainty factors. Distance learning meant that students' home environments (an intimate space) functioned as their learning space. Students could create their own comfort zones, while the external world was heavily impacted by Covid-19 with all its uncertainties. Indeed, the pandemic disrupted the in-presence teaching mode and resulted in all students being obliged to attend distant learning courses (Baber, 2021). In online classes (especially those of large students' size), procrastination seems to be a common issue, and one which is leading to poor students' academic performance (Cheng & Xie, 2021).

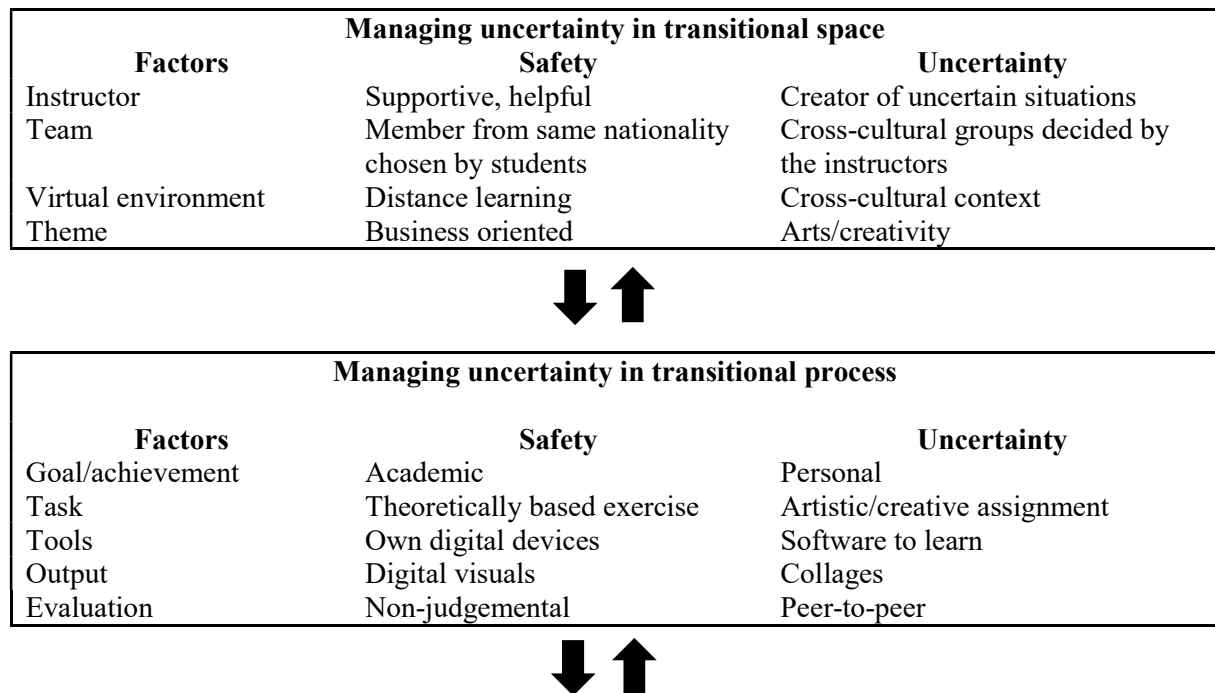
Findings reveal the complexity of designing safe but also challenging transitional spaces. Fig. 1. shows that the instructors set the boundaries of the safe space within which the students were asked to manage uncertainty, for example, instructors decided who was participating to each cross-cultural group and assigned a specific task with an art/creativity theme, rather than the usual, predictable business-focused task. The instructors needed to actively listen to the students in order to create a permissive environment in which they could take responsibility.

The supportive, non-judgemental space fostered students' 'psychological safety' (Marder et al. 2021), a necessary condition to maximize the full potential of collaborative learning. Indeed, the students worked on this digital arts-based project without fear of failure, as the task was manageable, and the assessment was based on task understanding, its completion, the delivery of the comprehensive visual and textual parts, and the evidence of collaborative work. This indicates that a safe transitional space promotes learning and enables learners to manage uncertainty.

### 4.3.2 Transitional process

The arts-based pedagogical approach revealed the importance to enabling a transitional process. This novel result expands transitional space theory. The students' collaborative learning required sustained engagement with the task. The project output -the collages on winter tourism- was perceived as a challenge, even by students who were confident in using digital visuals. Students had to reach a consensus on the meaning of the message represented in the collage. This required dealing with uncertainty given that the task and goal differed from their usual rational, theory-based in-class learning. This novel learning approach allowed students to express their creativity and imaginations and to reflect on themselves. Students dared to use different tools, materials and, most of all, creative and out-of-the-box ideas to express their perceptions of winter tourism in their collages. Further benefits of the transitional process are: (a) sustained student engagement in distance learning, and (b) willingness to take responsibility in giving feedbacks to peers on their works (Fig. 1). Content analysis of the reflective reports revealed participants' efforts to overcome perceived communication, cognitive and affective issues, and technological problems. The reports also unveiled that the students collaborative learning project and the related efforts -solving cross-cultural communication issues, delivering the task on time and taking responsibility throughout the process- made them proud and enhanced their self-efficacy. Fig. 1 shows the elements of transitional spaces and processes and their contribution to collaborative learning and learning outcomes. The figure is based on the analysis of the reflective reports and on the instructors' own reflections about this novel pedagogic approach. Digital arts-based collaborative learning occurred in a transitional space through a transitional process in which students were stimulated to manage diverse uncertainty factors. The back-and-forth arrows indicate the interconnectedness between space and process, built around the project, to achieve the expected learning outcomes.

**Fig. 1.** From transitional space and process to collaborative learning and learning outcomes



### **Digital arts-based collaborative learning**

- sustained engagement
- reducing and managing uncertainty
- imaginative self-expression
- making visual art
- meaning creation through collaboration
- self-reflection



### **Learning experiences and outcomes**

- collaborative skill development (problem-solving, cross-cultural communication, active empathetic listening, language, time management)
- experiencing success in a cross-cultural context
- enhanced creativity and self-efficacy

## **5. Conclusions and implications for pedagogic practice**

Current management education systems claim to provide students with knowledge and skills that will enable them to solve real-life problems. However, as seen during the Covid-19 pandemic there is a level of unpredictability in real-life as well as in business management. Thus, fresh pedagogic approaches are needed to help students deal with uncertainty and strengthen their soft skills and competences. This study adapts psychoanalytical and cognitive psychology theories to provide new insights into capacity building for students with a focus on fostering their sense of self-efficacy and trust in their own abilities to perform specific tasks in unfamiliar and challenging spaces. In so doing, this contribution responds to Ratten and Jones's (2021) call to explore fresh pedagogical ideas.

To this end, the paper introduces collage making into business education and demonstrates that a digital arts-based approach increases students' collaborative skills, creativity and self-efficacy. This approach builds on the assumption that since art is central to human experience, it can play an important role in management education. Consistent with Yang, Ivanova and Hufnagel's (2021), this study substantiates the enhanced self-efficacy that results from collaborating on the creation of a piece of art. One of the features of an effective art-work is that it encourages deeper reflection on bigger issues and offers an opportunity to consider different perspectives about the world (Mack, 2021). This visual task encouraged imaginative self-expression and meaning creation through collaboration. These skills are transferable to most businesses. Providing safe spaces in which students can 'learn to fly' without having to take any consequential risks, appears to be paramount (Giel et al. 2021). The theory of transitional space has been shown to be useful with respect to the need to design virtual and/or blended learning environments with care.

This study employed transitional space theory within a pedagogic context and its findings reveal that transitional processes are as important as transitional spaces. Results are in

line with Kisfalvi and Oliver (2015) who suggested that safe spaces that include challenges or discomfort enhance students' self-efficacy. Consistent with Marder et al. (2021), findings reveal that the instructors' committed and collaborative presence enabled the students to be creative. The instructors were the actors introducing uncertainty and risk into the transitional space and process. This is done by creating a challenging situation (e.g., working in a cross-cultural team), setting a challenging task (e.g., an artistic/creative assignment), and giving students freedom to experiment, dare and share. Yang, Ivanova and Hufnagel (2021:10) 'experienced strong resistance' from students to the use of visual arts in management courses. Interestingly, in the present research, students expressed positive acceptance of the task, likely because of the opportunity to collaborate with students from another country.

This paper suggests that management instructors can direct students into stimulating arts-based activities and posits that university curricula -in tourism management- can be designed in a way that integrate arts-based collaborative learning for holistic self-development (Kariv, Matlay & Fayolle, 2019). It is also advocated that this pedagogic approach can empower students to develop the soft skills currently demanded in a highly connected and collaborative business world. The approach can be adopted within virtual, hybrid and face-to-face learning spaces. Future research could use different approaches and/or specific measurements to assess students' collaborative skills, self-efficacy and creativity, measuring these aspects before and after the assignment is completed. Researchers could also: (a) invite students to follow-up interviews once they are working in business environments, and (b) extend the approach to business training programs for companies. This would provide novel insights on how art-based activities can further increase collaboration in cross-cultural learning and in working settings.

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