

Distant partners: A case study of Global Virtual Teams between Spain and South Korea

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ABSTRACT

Global Virtual Teams (GVT) among higher education institutions stand as a powerful tool of extending internationalization techniques as well as improving collaborative learning and transversal competences. This study stems from the belief that using these channels allows students to establish connections and strengthen their confidence in networking for professional purposes. This study describes a collaborative project established with undergraduate students of 23 different nationalities in two different business schools located in Spain and South Korea (n=109; 61 in Spain and 48 in South Korea). The courses in both universities had similar learning objectives focused on the development of written and oral communication skills in a business environment. Through a series of semi-monitored activities and questionnaires, the research offered highly satisfactory results, with a vast majority of students expressing how they had substantially accomplished different improvements: team work, learning how to deal with cultural differences, improving communication skills and problem-solving strategies.

This case study can contribute to a broader understanding of virtual exchange activities in higher education in different cultural contexts in terms of the types of activities engaged, the perceived value and learning outcomes as well as shared challenges. This understanding will allow to define common strategies in the practice of virtual exchange and to achieve greater integration within university curricula.

Virtual exchange activities contribute not only to the improvement of students' language and digital skills but other transversal competences such as, problem solving and team work, which seem to become more important in an increasingly complex and competitive world of global connections.

KEY WORDS: *virtual teams, communication, collaborative project, business skills, digital competences*

1. INTRODUCTION AND THEORETICAL FRAMEWORK

This study stems from a strong belief in preparing university students for the demands of a rapidly evolving business world. Higher education institutions, and business schools in particular, occupy a crucial role where they must be constantly adapting to the demands of society. The creation of diverse real-life collaborative activities in higher education is a way to learn the required skills in a professional context. They equally represent a superb form of bridging the gap between academia and the professional world through a revision of what efficiency at higher education implies (Kupriyanova et al 2018). International collaborative projects at higher education stand out as unique opportunities to develop learning experiences without encountering additional expenses or material resources (Sutanto et al. 2011; Taras et al. 2013; Ubachs and Henderikx 2018). Incurring in an extra economic burden could deter many professionals and students from a collaborative experience. Thus, technology provides a wide range of tools that create a real rendering of what international projects can be, despite the semi-controlled scenarios. There must be a constant reflection of the available resources together with the expected learning outcomes, leading to an ongoing improvement of educational tools. By prioritising peer learning, collaborative projects and cultural awareness, business students can reflect on some of the skills they will subsequently have to adopt in their careers. At the same time they will develop and acquire additional abilities which could not be integrated in class without the support of technology.

In order to facilitate this goal, new learning methodologies and technology-based activities are being applied with a basic purpose: to transform a passive learning, in which students act as passive receivers of information, into a learning based on active and constructive strategies in which the responsibility for learning is transferred to the student while receiving frequent feedback from the instructors. Active learning can be defined as any instructional method or pedagogy that involves students in the learning process. Digital media technologies, specifically, offer various tools for collaborative learning and student-centred learning (Bozdağ 2018: 680). European Higher Education institutions can also offer several options allowing the physical or virtual mobility among students, from the use of MOOCs to joint PhDs. These activities allow the students to have an alternative to international mobility programmes in case they cannot afford them, with the advantage of being tailor-made to their curricula needs (Ubachs and Henderikx 2018).

This paper covers a cross-cultural assignment between two higher education institutions aiming at illustrating the importance of time management, improving communication skills and the awareness of cultural differences in business. Training business intelligence and cultural awareness among students can bring up positive results for future careers (Rehg et al. 2012), as it guarantees adequate preparation in abilities that will be crucial in the business world. Equally, cross-cultural awareness is a necessary skill in business context, and its correct implementation can result in successful business ventures. Thus, business schools carry out numerous efforts to integrate cultural awareness in their study plans, conscious of developing new 'educational tools' so that students are better prepared for the professional world (Jurše and Matjaž 2011; Rehg et al. 2012). Business schools stand, thus, as pivotal in order to establish networks which expand the world vision of their students and at the same time improve the efficiency of managing projects and businesses (Jurše and Matjaž 2011).

This project understands interculturality as something "dynamic and continuously changing" (Bozdağ 2018: 680). By working with two different multicultural groups of university students located in Spain and South Korea, the project pretended to explore the contact of distant

cultures and students and their integration when working in a collaborative project within their respective business schools.

Learning competence on the use of communication channels can help students establish connections and strengthen their confidence in networking for professional purposes, despite the existence of previous studies demonstrating reluctance of students to establish new connections (Livingstone and Sefton-Green 2016: 249-250). At the same time, this project was aimed at letting students increase their awareness of intercultural issues, whilst coordinating the task among group members in the best possible form (Sutanto et al. 2011).

This study will use the terms Global Virtual Team (GVT) as a more detailed description of the analysed task. It falls under the category of Virtual Exchange (VE), as described in O'Dowd (2018) and Ubachs and Henderikx (2018). The definition, however, is that still used by scholars for VE, considering it as "the engagement of groups of learners in extended periods of online intercultural interaction and collaboration with partners from other cultural contexts or geographical locations as an integrated part of their educational programmes and under the guidance of educators and/or expert facilitators" (O'Dowd 2018: 5). The choice of GVT complements previous confusing expressions referring to the same type of activities and covers the multiple activities that can be developed; however, this definition expands on that of Taras et al. (2013), as it includes the figure of the educator in the ongoing learning process. As the article discusses, these activities require close monitoring from the teachers, as failing to do it can bring up frustration among the students.

GVT activities can easily project the same challenges as a real face-to-face team would involve. "The most obvious benefit of GVT-based projects lies in the opportunity to experience the challenges of working in multicultural virtual teams and practice how to deal with them" (Taras et al. 2013: 416) and exploring the learning cycle (Kolb 1984). As such, there are numerous benefits involved in developing these activities, as Ubachs and Henderikx (2018) noted. For the students, they can enjoy the learning and experiential benefits of having an international experience without the travel costs. For the institutions, they increase and enrich their academic offer and ensure that 100% of the students involved in GVT can enjoy an international experience. GVT are likewise a form of boosting the reputation of the institution through innovative programmes with the subsequent improvement of student registration. Besides an enrichment of activities offered by the GVT, however, denotes a more international approach in the nature of the activity and the nationality of the participants. When GVT include several assignments adequately structured through a number of weeks, can offer the chance to reflect on the learning process repeatedly (Taras et al. 2013).

A large part of the activities carried out in GVT-based projects lies in the development and reinforcement of transversal competences, which, nowadays, have a very important role in university education. In fact, the focus on transversal competences "emphasises the intentionality of teaching/learning and higher transferability in different fields and, therefore, the awareness of the possibility of conversion of acquired competences into the capacity for action" (Zadra 2014:116). The conception of competences constitutes the essential foundation in the professional world, and therefore, it becomes a key element of any educational model (De los Ríos 2010: 1368). Today, enterprises demand competent professionals, and therefore, in universities such as ESIC Business & Marketing School (Valencia campus, Spain) and SolBridge International School of Business (Daejeon, South Korea) it is stressed that one of the measures necessary for achieving employability is developing transversal skills and competences (communication and languages, handling properly information, solving problems, teamwork) to lead social processes, as stated in the *Convención de Instituciones Europeas de Enseñanza Superior* (Convención 2001).

Competences can also be understood as an extension of the concept of ability and qualification and the competence of professional action as the sum of the competences essential to carrying out a professional task well (De los Ríos 2010: 1368). Indeed, a number of transversal competences are expected to be achieved in addition to the specific competences of each subject. The EU establishes 21 different competences grouped in four different dimensions areas (Vuorikari et al. 2016):

- Information and data literacy
- Communication and collaboration
- Digital content creation
- Safety problems
- Problem solving

The case analysed in this paper integrated several of them throughout the several weeks it lasted, concluding in an overall satisfactory implementation and adoption by students and teachers alike. In this particular case the study developed tasks aimed at information and data literacy, communication and collaboration among peers and internationally as well as solving the unexpected problems which could arise.

2. METHODOLOGY

2.1. Data collection

The present study was carried out between two different Business Schools in distant countries: ESIC Business & Marketing School (Valencia campus, Spain) and SolBridge International School of Business (Daejeon, South Korea). There was a total of 109 undergraduate students (69 in Spain and 48 in South Korea) of 23 different nationalities, distributed in 13 groups of 4-6 people in each institution. The project was divided in two parts, but it started with an ESIC-based activity that was not replicated at Solbridge. First, ESIC students had to organise a student association developing an extraacademic activity that was missing in their home institution and they thought sufficiently attractive for their classmates. Some examples at ESIC were organising an e-sport competition, a film club, a cooking club, a paddle tennis club, organising escape rooms nights, or organising events for exchange students, among others. In the case of Solbridge groups concentrated on exploring popular culture (karaoke, K-Pop, food culture) among the Spanish students. The assessment of the project would give additional marks, if students were able to successfully organise the event and provide evidence to their classmates. Second, and this corresponds to the GVT activity itself, students had to explore, with the help of the peer group in the other institution, the feasibility to organize that association in the partner institution.

Several months prior to the beginning of the academic year, the lecturers of both institutions had started exchanging emails developing the project and making sure that the learning objectives and time organization of the semester would fit within the purpose of the courses. Hence both courses focused on the development of written and oral communication skills in a business environment, with tasks such as preparing reports and giving presentations. This activity was the only shared assignment in the course and represented a 25% of the final mark in the case of ESIC and 15% in the case of Solbridge. Before the start of the activity the students in both Schools were given a questionnaire asking them about the importance they gave to the learning outcomes developed in the course. The same questions were subsequently asked at the end of the activity to compare their views and observe the learning process, obtaining results on the importance students gave to the learning objectives *before* the activity and how important they were *after* the task, and assessing then learning similar to Taras et al. (2013).

The final questionnaire included questions that let them add qualitative information about their views of the activity.

As part of the research, students had to maintain several videoconferences with their peer groups to gather information, discuss their progress and support each other on the research on the partner city and institution. This proved to be one of the most challenging tasks, as the 7-hour time difference (8 hours after the implementation of the winter time) between both countries represented a real challenge for most of the students, as they reflected on the feedback. Some students mentioned that it was the first time for them to use skype, manifesting a considerable state of nerves before their first videoconference.

The coordination among the group members and the lecturers was originally devised as transversal, following recommended patterns for similar GVT projects (Sutanto et al. 2011). There were two periodical 'quality audits' in which lecturers asked about the documents each group was developing together with the minutes for the videoconferences and meetings each group was holding. For most people they were new activities, as neither minutes nor formal videoconferences had been previously executed.

At the end of the semester, students had to present a final report where they had to describe their student association. They also had to give a presentation of their project before all the other students and analyse the relationship with their peers in the partner institution. In the case of the Spanish institution, the content of the presentations was going to be part of the final exam, as students would be asked about the relevance of the projects. On the presentation day, students would also decide what the best project was in a questionnaire and assess the support and commitment of the members of their own group. The winning group would obtain one additional point voted by their own peers.

2.2 Data collection

In this study, a total of 109 students participated, of which 61 belonged to ESIC Business & Marketing School (Valencia campus) and 48 to SolBridge International University.

The qualitative and quantitative information was carried out through a multiple-choice test, which the students completed twice. The first one at an early stage of the educational experiment and later after its completion, with the aim of comparing the results obtained.

The test evaluates the physical characteristics (origin, gender), the subjective importance that each student assigns to the activities carried out and the degree of satisfaction. Open opinion responses were used as well. 82 students from both institutions completed the survey and no sampling was performed since all the data is included in the findings.

3. FINDINGS

Based on the information collected in the questionnaires, the results obtained are presented in this section. Among all the information collected, one of the main estimators of satisfaction in the process is the students' response to the *overall satisfaction* with the methodology employed. The response admitted 5 levels of satisfaction, 5 corresponding to the highest satisfaction and 1 to the lowest. This classification of satisfaction in the answers was maintained for the rest of the survey items that were analysed in this section. As can be seen in Figure 1, the final assessment of the project was highly satisfactory: 56% of the students found the activity to be *very satisfactory* or *satisfactory* meanwhile only 11% found it *not* or *little satisfactory*. When comparing the results obtained according to the institution, there is a significant difference between the responses of ESIC students and those of Solbridge: the latter valued the experience more positively, and with less variability than the students from ESIC (see Table 1). Taking into account only the students' answers about their overall satisfaction with the activity, it is difficult, if not impossible, to deduce what reasons have led the students to determine their assessment.

From the different answers of the questionnaire and the open answers it is possible to find some indicative of the strengths and weaknesses of this cultural exchange. The internationally more diverse ESIC group, where there were more students with different nationalities brought, however, a greater reluctance to participate in a cultural exchange in a language other than their mother tongue. The SolBridge group included slightly less cultural diversity and greater use of the English language but was keener to bridge the linguistic differences between them. This reason, the lack of greater cultural diversity and experience in cultural exchange, can be a decisive factor in assessing the overall satisfaction of this activity. Also, it should be taken into account that in the global assessment, not only the improvements in the communication and teamwork skills in the local group are evaluated, but part of that satisfaction is conditioned by the performance and communication skills of the other university group.

The lecturers themselves also expressed their overall satisfaction with the experience, despite the shared cultural barriers: “Actually, I really enjoyed the experience. All of the feedback that I received indicated that the students enjoyed the collaboration as well. One of the major problems that the students experienced was the major time differences and language barriers. I explained that major time differences could be expected in almost all globalized economic partnerships and collaborations as well as language problems. So, essentially, I explained to the students that they may experience similar problems in real-life situations. Overall, it was an excellent experience for myself and my students” (Quinn, SolBridge lecturer, personal communication).

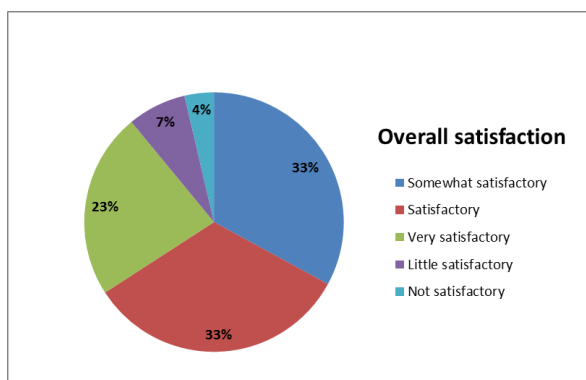


Figure 1. Overall satisfaction of the virtual exchange between Spain and South Korea.

The students of both institutions were asked about the importance in the learning process of the different activities carried out. The items evaluated were: *writing e-mails in an adequate style*, *taking minutes in a meeting* (taking min), *writing reports and proposals leading to make decisions*, *being aware of cultural differences*, *clearly illustrating in writing and orally the most relevant issues in a situation* (illustrating), *debating on current events with increase ease* (debating), *explaining and describing the socio-political situation of a country* (explaining), *identifying the different points in favour and against in any given situation in order to adopt a position* (identifying), *analysing situations in order to negotiate successfully* (analysing), *speaking in public in English fluently* (speaking).

From the answers obtained in the previous items, some will be studied in more detail. The results for *writing e-mails in an adequate style* (Figure 2) showed that 83% of the students considered important or very important writing e-mails in a proper style, meanwhile only 17% thought that was not important. As in the previous case, there existed a significant difference between the answers when the factor institution was considered. SolBridge considered more important this activity rather than ESIC students (Table 1), and this higher result can be also due to cultural differences. Whereas at ESIC, the lecturer stressed the importance to email students

from the other institution in a proper manner, many of the students resorted to one or two emails and continued conversation through various social networks.

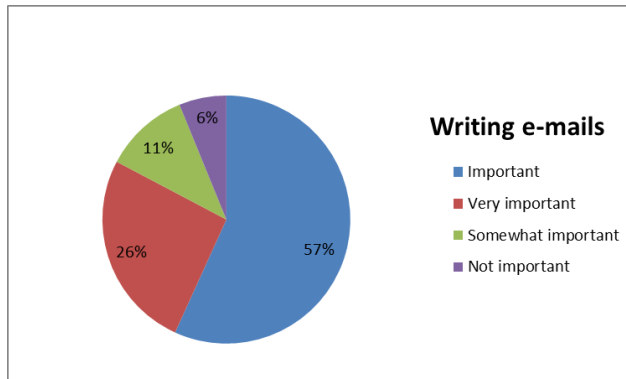


Figure 2. Students' opinion on the item *writing e-mails in an adequate style*.

Cultural differences are an expected issue that adds complexity to the activity, and strengthens intercultural communication skills. Indeed, 91% of the students considered cultural differences as important or very important (Fig 3). It has been found a significant difference (p -value = 0.0175) in favour of ESIC.

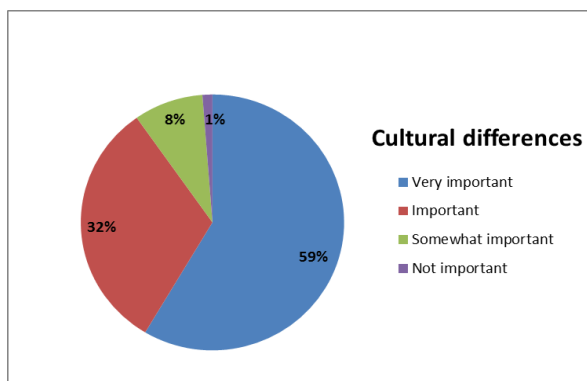


Figure 3. Students' opinion on the item *being aware of cultural differences*.

The awareness of cultural differences among ESIC students may stem from the lack of access to cultural references of the two major nationalities of SolBridge students (South Korea and China), compared to the frequent access to international popular culture among SolBridge students. This opens new possibilities for further research and is particularly welcome, as most ESIC students were majoring in International Business.

When asked about the others items in the survey, students from both institutions also showed significant differences in *taking the minute*, *explaining and describing*, and *speaking in public*. However, non significant differences were found in the items *writing reports*, *illustrating in writing*, *debating on events*, *identifying points* and *analysing situations* (Table 1). Answers to the aforementioned items are shown in Figure 4.

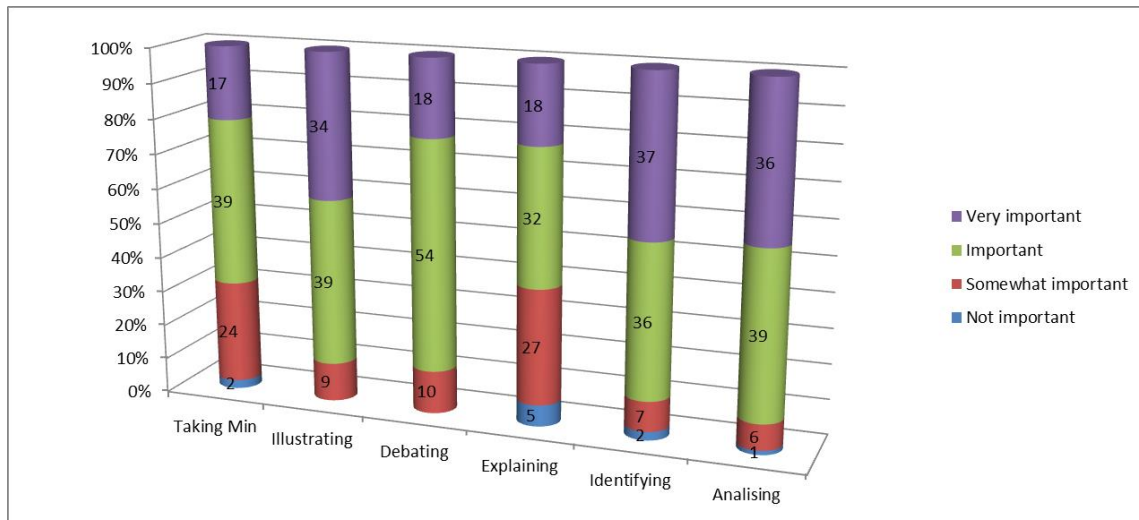


Figure 4. Students' opinion on the several items.

Table 1. ANOVA for the different items evaluated depending on the institution.

Dependent Variable	Average		Std. Deviation		P-Value	Difference
	ESIC	SolBridge	ESIC	SolBridge		
Overall Satisfaction	3.26	4.35	1.01	0.67	0.0000	Significant
Writing e-mails	2.87	3.32	0.83	0.79	0.0131	Significant
Taking the minute	2.64	3.27	0.74	0.65	0.0002	Significant
Writing reports	3.12	3.41	0.76	0.68	0.0825	Non-significant
Cultural differences	3.34	3.72	0.78	0.45	0.0175	Significant
Illustrating in writing	3.32	3.27	0.70	0.59	0.7707	Non-significant
Debating on events	3.04	3.21	0.59	0.56	0.2084	Non-significant
Explain and describe	2.55	3.17	0.89	0.66	0.0014	Significant
Identifying points	3.28	3.38	0.77	0.682	0.5738	Non-significant
Analysing situations	3.28	3.45	0.69	0.63	0.2889	Non-significant
Speaking in public	3.73	3.38	0.52	0.78	0.0155	Significant

The results on the best part of the virtual exchange activity show that knowing new cultures and people, communicating with other people, and solving communication problems have been pointed out by 90% of the students. On the contrary, the worst part of the activity was indisputably the problems with time difference (8 hours), forcing them to adapt to each other to avoid obstructing the communications (Fig. 5).

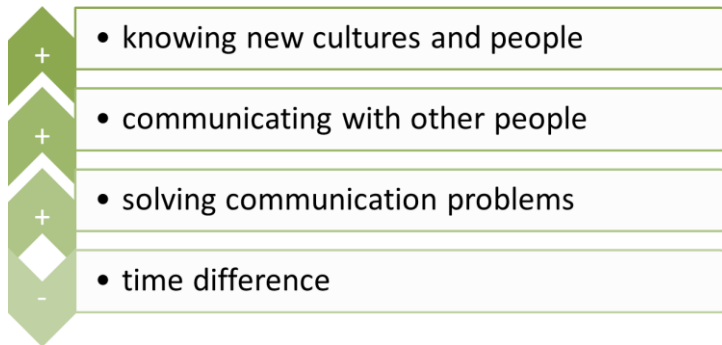


Figure 5. Students' opinion on the best part of the virtual exchange activity.

In order to numerically evaluate these findings, the study divided the responses into four main categories: (improvement in) team work, (improvement in learning how to deal with) cultural differences, (improving) communication skills, (improvement in learning strategies of) problem solving (Fig. 6).

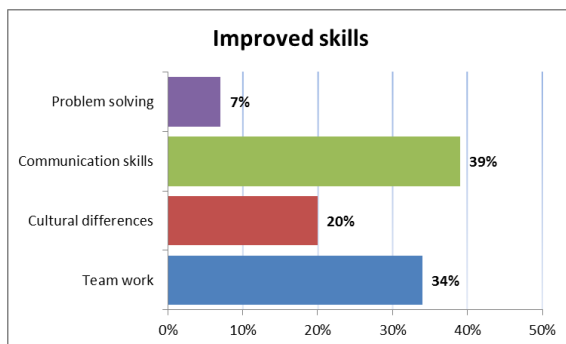


Figure 6. Students' opinion on the best part of the virtual exchange activity.

From the answers obtained, 31% of students perceived an improvement in team work, 46% perceived an improvement in their communication skills, 18% learnt strategies to better deal cultural differences in communications, and 7% claimed to have improved solving problems skills.

The item “What have you learned from working and communicating?” in the survey was intended to obtain information on the skills that the students have improved during this cultural exchange. Figure 7 shows a word cloud, in which the size of the words is proportional to the number of times these words are mentioned in the answers, which clearly emphasizes the communication, teamwork and public speaking skills.



Figure 7. Word Cloud on the enhanced skills after the virtual exchange activity.

4. CONCLUSIONS

This case study has contributed to a broader understanding of virtual exchange activities in higher education in different cultural contexts in terms of the types of activities engaged, the perceived value and learning outcomes as well as shared challenges. This understanding will allow to define common strategies in the practice of virtual exchange and to achieve greater integration within university curricula, given their demonstrated improvement of the skills of the participants (Taras et al. 2013).

Virtual exchange activities contribute not only to the improvement of students' language and digital skills but other transversal competences such as, data literacy, problem solving and team work, which have become more important in an increasingly complex and competitive world of global connections. Designed in a more participatory way, these activities could open up a space for various forms of intercultural learning. Through this collaborative communication space, students could be part of international learning networks, which later on can turn into both formal and informal networks outside of the school. They will simultaneously be able to adopt a wide range of digital competences which will enable to take part in society both at a personal and professional level.

Limitations and implications for future research

One major hurdle in the activity is that the students were aware that they were working on a fictional objective. Had they been working in a real-life task in which they had to establish a student association in their own institutions, their enthusiasm for the project would likely have been different. This could trigger an additional motivating factor when establishing subsequent similar projects, where students collaborate for a real activity in which they build it from scratch, conscious about its real implementation. Additionally, there was a misinterpretation of the elaboration and expectation of the activity on the part of some students of both institutions, although teachers had explained it in the same way and were coordinated. At the same time, misinterpretation of the shared project could still take place in a real environment. It may also be due to lack of motivation and confidence in the project they were working on. As a matter of fact, some ESIC students expressed a growing lack of confidence in the feasibility and implementation of the project in their own school throughout the semester. When they were first asked about how confident they were their project could be implemented in the School, they expressed an overwhelming confidence, but, as days passed, and they realised how time-consuming the organisation of activities were and the little impact some decisions had on their peers, there was a growing dismal approach. Hence it is of paramount importance to offer an adequate monitoring of the students and the activity to ensure their enthusiasm and learning does not disappear.

Teachers in both institutions agreed on the necessity to describe even more carefully the tasks and set clear objectives for future projects. Despite the belief of many students in their improvements of teamwork skills, subsequent projects could assess how the improvement took place and how they applied that ability to future activities and their careers.

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