A Language Exchange Program: Sustainability Innovation in Language and Culture Engagement

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ABSTRACT

Spanish Educational Laws over the past years have been promoting the widespread use of English as the vehicle for teaching and learning in most curricular subjects. This trend is evincing new needs especially among higher education students. Consequently, Spanish Universities are looking for ways to provide international training involving global partnerships. The Polytechnic University of Madrid, Spain (UPM), and the University of British Columbia, Okanagan, Canada (UBCO) have come together to offer opportunities for international collaboration and learning, thus facilitating virtual encounters among Spanish and Canadian students. The Language Exchange Program between the UPM and UBCO acts as a model for sustainability innovation in language and culture engagement as the students can interact with native speakers in communication tasks. This interdisciplinary initiative supports the latest methodological principles observed in the Common European Framework for Languages [1], such as autonomous and life-long learning, self-assessment and peer-assessment as well as the incorporation of new technologies to the learning process. Additionally the 'virtual' mobility is provided at no extra cost. This article presents the preliminary results of two virtual exchange programs that have been offering varied forms of study which are venue-independent, promoting collaborative work and cultural exchange.

Key words: innovation, sustainability, second language (L2) learning, virtual exchange, international cooperation, interdisciplinarity.

1. INTRODUCTION

Sustainability can be defined as the capacity to endure. It covers three spheres: social, environmental and economic. For humans, sustainability is the potential for long-term maintenance of well being, which has environmental, economic, and social dimensions. The philosophical and analytic framework of sustainability is connected to many different fields. As shown in Fig 1 all the three spheres overlap [2].
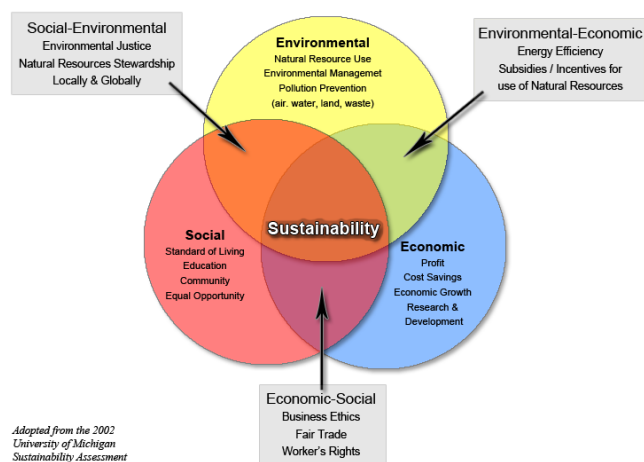
The Three Spheres of Sustainability

Fig 1: Three Spheres of Sustainability

In a globalizing world of limited resources universities play a vital role in preparing students to meet the sustainability challenges of the future. The imperatives of sustainability point not only to new course content, but also to new ways of teaching that content. As a project with relevance across the disciplines, sustainability presents a valuable paradigm for rethinking pedagogy. Sustainability embraces interdisciplinarity; a critical and thorough understanding of issues related to environmental sustainability necessarily involves contributions from a wide variety of disciplines throughout the natural sciences, the social sciences, and the humanities.

The three spheres of sustainability are concentric circles: social—people, communities, nations—economic—businesses, markets and policies and these two partly cover the environment sphere and are therefore bound by its features and limits. As we will see, our exchange program is associated to social sustainability, which in turn is linked to the other two spheres. Although the term social sustainability receives far less attention in literature than environmental or economic sustainability, the issues and concepts associated with social sustainability have been addressed for decades [3]. Social sustainability is the core element of sustainability since it is about creating and maintaining life quality for people. Financial and environmental factors are important, but they are both means to an end, rather than ends in themselves. Therefore, by working towards financial or environmental sustainability, work towards social sustainability is accomplished.

Sustainability is studied and managed over different time and space benchmark and in many contexts of environmental, social and economic organization. Education for sustainable development means including key sustainable development issues into teaching and learning [4]. It also requires participatory teaching and learning methods –interdisciplinarity- that motivate and empower learners to change their behavior and take action for sustainable development. Interdisciplinarity can be a challenge, but it becomes easier with a more effective use of resources on one's campus community and beyond, such a team teaching with colleagues from different disciplines or in different campuses. Consequently, education for Sustainable Development promotes competencies like critical thinking, imagining future scenarios and making decisions in a collaborative way. Education for sustainable development requires far-reaching changes such as autonomous learning, self-assessment and peer-assessment as well as the incorporation of new technologies to the learning process [4].

Universities around the world are looking for ways to give students more international training; however, exchange programs are expensive and difficult to handle, mostly through lack of sustainability criteria. The number of student exchange programs in the Mobility Office at EU Arquitectura Técnica de Madrid (EUATM) of UPM has substantially increased. There were five exchange programs in the academic year 2008/9, with only four students going abroad. However, in the academic year 2011/12 the number increased to 25 exchange programs mobilizing 119 students to different universities round the world. Nevertheless, this represents 0.035% of the total the enrolment at EUATM (UPM) in 2011-12 which was 3400. It is necessary to point out that the students travelling get a small grant that partially covers their expenses.

However, the UPM encourages its graduates to reach a good level of proficiency in the English Language, which is now a growing demand in the workplace and a basic requirement for engineers, architects, scientists and researchers all around the world [5]. All UPM graduates have to prove that they can use the necessary language skills specified in the Common European Framework for Languages (CEFL) [1] [6] as a basic condition to registering in the curricular English subjects and thus to obtaining their degree. Within this framework, the university is undergoing a deep changeover that is affecting both its curricular and normative structure and its teaching and learning dynamics. One of the ways in which the objectives of the new curricula can be met is by virtual exchange programs with English speaking universities. Accordingly, the UPM and the UBCO are facilitating virtual encounters among Spanish and Canadian students. The Language Exchange Program between the UPM and UBCO acts as a model for sustainability innovation in language and culture engagement. Using a case study to analyze the impact of virtual encounters on learning improvement and language-culture awareness, both effectiveness of the program and exploration of the nuances of a multi-dimensional perspective are assessed. More specifically, this exchange program links second language learning with intercultural contacts in a virtual way with a view to estimating the impact of the learning model proposed (see section 3).

Current perspectives on how students learn have resulted in significant redirections when designing new learning environments; likewise the Information Age has provided an excellent tool for teachers to create virtual learning spaces [7] [8]. Virtual encounters not only reduce communicative distances between people, but they also serve as a tool to enhance language proficiency and develop intercultural awareness in Second Language Teaching and Learning (SLTL). The implementation of virtual exchange programs entails supplementing the physical mobility models for the program to be sustainable. Virtual experiences add new flexibility and time prospects to the universities in order to fulfil SLTL objectives. In this sense, a virtual program can offer more varied forms of study that can be shorter, time-specific and venue-independent, and in turn, it can offer the students more personalised opportunities. Additionally, distant learning programs provide different dimensions of mobility, and facilitate international collaborative work between lecturers in different countries and with different academic cultures [5].

On one hand, the program follows the latest methodological trends such as the development of autonomous and life-long learning and self-assessment as key to improvement. On the other hand, it incorporates new technologies and virtual systems to the learning process. Students will learn not only about writing and speaking but also about how to question the effects of globalization, intercultural communication by re-examining their assumptions about technology, culture and location. Hence emphasizing the analysis of culture will let the students understand the contextual and situated nature of communication processes. To raise cultural awareness as well as inspire linguistic confidence in the students is the ultimate goal in such encounters. Moreover, it is expected that their knowledge of L2 will considerably improve by sharing experiences with each other via e-mail or Skype [9].

2. EXCHANGE PROGRAM 1

The first program was between UPM University (Spain) and Macquarie University (Australia), and was represented by the EUATM students and the International Studies Department respectively. Students were offered the opportunity to improve their knowledge of the foreign language and culture they were studying: English and Spanish respectively. To that end, each participant was matched to a partner in the other university. Both participants were required to complete a number of writing and speaking tasks on a variety of topics dealing with everyday situations, with the description of emblematic sites and buildings or with career prospects, depending on their level, so that the Australian students should revise and correct the Spanish students' writing assignments in English, and the Spanish students correct and give feedback to the Australian students in Spanish. Assignments were ultimately revised and assessed by tutors in both universities.

Faculty members involved in the project in both institutions selected a range of topics including but not limited to: youth culture, current events, cultural heritage, curriculum background, curricular subjects taken, difficulties of second language learning, home descriptions, reasons that have made students choose their degree, etc. These topics were graded from the easiest to the most difficult depending on the students' stated proficiency levels [10].

Given the fact that the two participating universities were situated in different hemispheres, resulting in an asynchronous academic syllabus practice, the project development was difficult to follow. Australian universities start their academic year in February whereas the Spanish year begins in September; students' summer vacations were also in different time periods. The experience with the Macquarie University proved that effective collaboration can sometimes be difficult to attain.

2.1 Students profile and methodology

The project included two target groups: UPM students in the EUATM[1]—those pursuing the Building Engineering Degree on their first and second year—and Macquarie University partners in the Department of International Studies taking the Intermediate Course II-SNP202, and the advanced courses SPN102 and SPN102 making a total of 260 partnerships, namely, 130 Building Engineering UPM Students and 130 Macquarie students, tutored by 5 lecturers at UPM and by 3 lecturers at Macquarie University. This was a compulsory activity for those students who had voluntarily registered in the English tuition courses in the Building Engineering School at UPM and for those students enrolled in the Spanish Courses of the Department of International Studies at Macquarie. For the written assignments we used *Nicenet and e-mailing and the oral communication tasks were done on Skype.

To facilitate language transfer and improvement, two subgroups were further identified at the Building Engineering School. This further classification was based on the Common European Framework for Languages (CEFL) placement scale, so that students having an intermediate level were classified as B1 and those with an upper-intermediate level were placed as B2. The matching with their peers at the Macquarie University was done considering the levels of both parties.

Students in both universities were required to fill in a questionnaire related to the program. The information retrieved from their answers proved that a good number of students, at both universities, understood and embraced the objectives of the project and wanted to engage on the different writing and speaking tasks. Students were also enthusiastic to be able to communicate with native speakers, to practice their skills and to improve their Spanish or English. Most students liked the idea of being able to help their peers with their native language and most of them at both universities expected to continue their relationship beyond the project requirements.

2.2 Some outcomes

This program has helped students, not only improve their speaking and writing skills, but also gain a wider insight into the effects of globalization, intercultural communication and information technologies by making students re-examine their assumptions about technology, culture and location. At the end of the program, students filled out a questionnaire on what they had learnt about the Spanish and Australian culture. In this way, they were able to analyze their peer's culture and customs, and raise awareness of other contexts and educational realities. It is important to note that all these achievements were at no cost contributing thus to the sustainability principles that led the undertaking of the project.

As we have stated above the time zone and different academic syllabi enactment on both the UPM and the Macquarie University was a difficult issue. On revision of the technologies, we concluded that some obstacles could have been overcome by incorporating virtual platform Moodle, in the second program, to the daily working of our operations as a unique ready-to-use resource for the written assignments, and Skype for the oral tasks. Actually, the excessive number of students participating in this program and the low number of tutors was not viable.

In order to guarantee effective communication across different time zones and solve the drawbacks we had in Exchange Program 1, some changes were made for Exchange Program 2 (see section 3).

3 EXCHANGE PROGRAM 2

Results from Exchange Program 1 revealed that exposing students to global technological environments promotes interpersonal communication skills and supports the development of a positive attitude essential to the nature of this type of initiative [5]. In view of this fact, we extended the scope of the virtual exchange project so as to incorporate another university. The new partner involved was the University of British Columbia Okanagan, most specifically, the Department of Critical Studies in the Faculty of Creative and Critical Studies. This new collaboration paved the way for an ongoing project but this time experience from Program 1 evinced the need for some minor, although important changes, such as:

- Less number of students to a manageable size to facilitate instructor's supervision.
- Some of the assignments were voluntary in order to facilitate constant exchange and contact between the students on both sides of the program.
- Information technologies: the use of Moodle or emailing for written assignments and Skype for oral practices to ensure an easy and accessible channel for immediate communication.
- Voluntary participation: it is not of interest to make this practice compulsory.

In view of the fact that motivation is one of the key success factors for student engagement in learning and knowledge sharing activities, in both universities we recruited only those students who wanted to connect with a pen-pal from Spain/Canada. Moreover, we followed a participatory design approach where all students had a sense of ownership of scheduling the times and activities they would carry out with their international counterparts. Regarding the motivational aspect of this latter virtual collaborative learning was the students' involvement in the planning and evaluation of all learning activities and their desire to improve their overall language skills (section 3.3)

3.1 UPM students' profile

With the incorporation of the Bologna Principles in the UPM syllabus design, all UPM Schools have introduced the compulsory subject *English for Academic and Professional Communication* equivalent to 6 ECTS[2]. As indicated in the introductory section of this paper, all UPM students are now faced with the necessity to proof a certain level of language proficiency before they obtain their degree, what is more, before they can officially enrol in the compulsory subject; more particularly, they have to submit written proof of an upper-intermediate level designated as B2 in the Common European Framework for Languages [1]. It is important to note that at the moment most UPM students have not acquired this stated level nor obtained the B2 diploma. In view of this situation, our program makes full sense as the perfect way to conflate both linguistic competence needs and intercultural exchange, bearing

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[1] The former EUATM (EU de Arquitectura Técnica) is now called Building Engineering School within the framework of the European Space for Higher Education.

[2] ECTS stands for European Credit Transference System. 1 credit in this system is equal to about 26 global work hours including teaching, testing, tutorials and student study time.

in mind that sustainability is a key issue in the midst of the current economic and social crisis.

Students from the 2nd and 3rd years were selected based on a personal interview with the program instructors. Language proficiency was important but not decisive in the selection and not L1-L2 language level matching was considered, given the fact that students were engaged in the tasks using one language at a time. Another key issue was to find a group of students with a high degree of motivation and an eagerness to learn about other cultures and contexts.

3.2 UBCO students' profile

The Spanish program in the Faculty of Creative and Critical Studies (FCCS) at the University of British Columbia in the Okanagan (UBC Okanagan) is aimed at students who are interested in acquiring abilities, experience and skills other than English language-based, and secondarily students who are pursuing a major or minor in Spanish. In addition to language skills, students pursuing a B.A. in Spanish are presented with literary master pieces of Spain and Spanish American, and gain a basic understanding of the Spanish and Latin American culture. The language-learning aspect of the program covers practical skills and daily application of Spanish, as well as skills that are transferable to a work environment and to an academic setting. After completing Span-101, Span-102, Span-201 and Span-204 the students should be fluent enough to carry out a conversation in Spanish. This is achieved through courses in grammar, conversation and translation. The program follows a standard university four-year B.A. structure and length (four years, eight terms, 120 credits). The program offers courses per school year plus 2 first and 2 second year language courses in the summer, and is committed to creating opportunities for students to participate in international types of learning.

3.3 Methodology

The experience from Program 1 (Australia) allowed us to develop the methodology for Program 2 (Canada). One of the biggest drawbacks of the Macquarie University experience was communication across different hemispheres with different academic years (see section 2); since UPM and UBCO share the same academic year this problem was solved. With regards to time zones, Australia is 10 hours ahead of Spain and the situation with UBCO is very similar because Madrid is 9 hours ahead of Kelowna (the Canadian city where UBCO is); therefore, in order to guarantee effective communication across different time zones, students were encouraged to schedule meetings using online collaborative tools such as Microsoft Office Live Workplace or Google Wave. Weekly status updates of these meetings were also requested. The third hindrance of Program 1 was the way the population was drawn into the study. All the students enrolled in a course were automatically included in the study without taking motivation into consideration; as a consequence we made this encounter voluntarily (see below).

More particularly, Program 2 was aimed at delving into intercultural aspects and language learning based on a two group classification; namely an experimental group (the one participating in the program) and a control group. It was our belief that by developing the intercultural competence of the students who learn Spanish at UBC Okanagan and English at the UPM de Madrid, the students' overall language proficiency will improve. Additionally, by providing the students with virtual intercultural encounters their intercultural awareness could be raised. An experimental design with a pre-test/post test procedure was used in order to determine the subjects'

intercultural and language proficiency followed by a guided program with virtual encounters. The intercultural development and language proficiency of the participants in the language-culture learning program would be compared with that of a control group of language learners (in the two locations) undergoing more traditional language instruction.

Fifteen Canadian students who were enrolled at the Spanish Language Program at UBC Okanagan were selected to match fifteen counterparts in the EUATM at the UPM, in Spain. These groups were divided into two experimental groups (15 students each) and two control groups (15 students each). The groups received a guided program list of virtual encounters requesting information on topics such as early events in each country, national customs, accomplishments, global connections, provinces and territories, traditions, and national holidays. The control groups received a regular on-campus language class.

These were the following tasks for the experimental group:

a) Pre-program tasks: students attended an information session where we explained the objectives of the study and advised then to use one language at a time when they were practising with their peers. Then students completed a language background questionnaire, took an online language proficiency test were provided with a guided program of the virtual assignment

b) In-program procedure: students could practice their tasks before submission as many times as they considered fit, both on Skype, Moodle or email. After practices, they had to post in Moodle the written assignments (properly corrected by his/her peer). At the end they had to submit their instructors a record of their oral and written connections

c) Final-program tasks: in the final stage all participants will be required to complete a language proficiency test a second time and a questionnaire

While the students in the experimental groups were exposed to the guided program of virtual encounters, the control groups received regular in campus language class. Currently, we are working in Exchange Program 2. As a consequence, only general outcomes are available at the moment (see section 4). We are now comparing the main differences observed in the experimental and control groups with a view to writing an article for a journal.

4. CONCLUSIONS

The students were very pleased to have new friends that are native in the language they are learning and to gain insights into cultural codes that are hard to learn from text books or prepare for a trip overseas. Students gained conversational experience and confidence in communicating in English or Spanish, and have maintained or improved their language skills. Through these virtual encounters, participants gained a sense of ownership for being asked to give feedback to their pen pals. Furthermore, they developed a sense of learning community: groups sharing the same values that are actively learning together from each other. Unfailing students/tutors orientation means getting everyone to agree about the objectives of the program before it starts and this should be kept in the forefront as the program proceeds. At the same time, in keeping with the guidelines in the CEFL referring to self-assessment and autonomous learning, they become more aware of their own language development and of the problems they have with

grammar and pronunciation, and start being more conscious of the mistakes they make. Our Language Exchange Program allowed UPM and UBC students to meet and exchange language and cultural insights in a relaxed environment at no cost. Adequate support and resources are also important; our program meets the required statements to be sustainable. Sustainability is at once an integrative discipline and a multidisciplinary project with statistical, scientific and humanistic underpinnings. Sustainability suggests place-based and project-based approaches to student learning. Teaching towards sustainability means that classroom and community are important. Teaching sustainability is both stimulating and challenging because of the interdisciplinary nature of the problems at stake. We expect that when students graduate from university and are faced with the need to actually apply many of the theoretical knowledge that they have acquired in their classrooms, they should benefit from this program, which attempts to provide them with not only the basic ability to employ innovative and modern communication hardware and software, but also to develop self-teaching and self-learning skills at no cost.

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