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# Best Practices in Jesuit Higher Education

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PEDAGOGICAL INNOVATION  
AND IGNATIAN PEDAGOGY



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## "The impact of a volunteering experience in the southern border (Spain and Morocco) on the integral development of university students"

### ABSTRACT

The Society of Jesus, being highly aware of the importance of facing the different social challenges, establishes the Universal Apostolic Preferences highlighting the need, not only of working against poverty but also of promoting educative experiences that seek a comprehensive formation for the youth. In this sense, the extra-curricular space, that goes beyond classes and includes sporty, cultural, and voluntary activities among others, has been rediscovered as a privileged scene for contributing to integral development.

This article describes the extra-curricular voluntary experience of young people from the University of Deusto living on the border between Spain and Morocco. More precisely, it is highlighted the value that has this activity helping to build a shared knowledge with other people; improve the students' academic and professional development; develop personal and social skills that contribute to their comprehensive development; and assume a greater compromise and responsibility about their daily actions. Also, it is gathered some of the key elements that need to be taken into account in Higher Education Jesuit Institution in order to achieve the benefits described previously.

### THE INITIATIVE

The authors highlight the **value of extra-curricular activities** to promote a comprehensive formation among the youth aimed at social personal transformation. They describe a voluntary experience organized by the University of Deusto in Tanger. The experience involves **three different projects**:

- **Dar Al Baraka from Home Nazaret project:** a shelter home that fosters 10 people with an intellectual or physical disability, people with no family assistance or resources to live on their own.
- **Dar Tika project:** it is a safe house where they offer medical and psychological monitoring for girls from 11 to 14 years old that have no family and live in the streets or that have suffered aggression and are at risk of social exclusion.
- **Father Lerchundi project:** daycare center for children from 6 to 16 years old, whose family cannot take care of them, they go there when they are not in school to eat, play and have school support and prevent them from bad lifestyle habits.

| LEARNING GOALS FOR STUDENTS   | OBJECTIVES   | HUMANITARIAN |
|---|--|--------------|
| <ul style="list-style-type: none"> <li>Enroll in <b>social projects with vulnerable groups</b></li> <li><b>Reflect and feel responsible for the inclusion of vulnerable people</b>, from their academic discipline perspective and procedures</li> <li>Go through a <b>group experience</b>, with students from different university degrees, in a <b>developing country</b></li> </ul> | <ul style="list-style-type: none"> <li>Promote a student's profile <b>awareness of social challenges</b></li> <li>Encourage a <b>safe space</b> where students' interaction and integration with others is fostered</li> <li>Allow students to <b>create ties with the community</b></li> <li>Favor <b>personal attitudes</b> among students that help in advancing <b>more human, just and sustainable societies</b></li> </ul> |              |

### LESSONS LEARNED

- Physical contact through participation in different social projects made students more aware of the different social realities and value their privileges.
- Students think it is a very good experience for creating a space where it is possible to reflect in groups and express different perspectives, beliefs, and ideologies.
- Working as equals allowed students to carry out a joint process of knowledge building that enriched their reflection and experience.
- The instructor role is pointed out as very useful in creating a safe supportive and confident space
- This extracurricular experiences not only entails the stay in Tanger, but also previous and later encounters where students can reflect and share their learnings

### RESULTS

Students highlight five gains from these experience



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# "The impact of a volunteering experience in the southern border (Spain and Morocco) on the integral development of university students"

DR. ARIANE DÍAZ ISO, DR. ALMUDENA EIZAGUIRRE AND AITOR ARBAIZA  
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### ABSTRACT

The Society of Jesus, well aware of the importance of addressing the various social challenges, has established the Universal Apostolic Preferences, which, in addition to working to eradicate poverty, highlight the need to promote educational experiences to help contribute to the comprehensive education of youth. In this regard, the extracurricular sphere has been rediscovered; it goes beyond the classroom and includes sports, cultural, volunteer activities, etc., as a privileged environment to contribute to holistic student development.

This paper describes an extracurricular volunteer experience undertaken by a group of young people from the University of Deusto on the southern border between Spain and Morocco. More specifically, it highlights the value of this volunteering activity to build shared knowledge with other people; to improve the academic and professional performance of university students; to develop personal and social skills that contribute

towards their holistic development and assume a greater commitment and responsibility with their own day-to-day actions. In addition, some key elements to consider in Jesuit higher education institutions are also included so that the design and implementation of ECAs achieve the benefits previously mentioned.

## DESCRIPTION

Societies today face complex social, political, economic and environmental challenges. These challenges must be addressed from the various social spheres. In this context, Jesuit universities, as institutions immersed in society, are faced with the challenge of focusing education towards comprehensive training, aimed at students' social and personal transformation (Aktas et al., 2015; Kagawa, 2007).

To address these challenges, the United Nations Security Council initiated the process to define the Sustainable Development Goals, which set goals in 17 social and ecological areas until the year 2030 (UNESCO, 2017). Jesuit universities worldwide are also called to contribute to this international agenda. In particular, they have the responsibility of promoting educational practices that provide students with knowledge, values and attitudes that enable them to adopt active citizenship.

Likewise, the Society of Jesus, well aware of the importance of facing the different social challenges, has established the Universal Apostolic Preferences

(2019) that will guide the Society's work in the coming years until 2029. These preferences help educational institutions to focus their actions on and for the mission and, in addition to walking with the excluded, call upon them to promote experiences and opportunities (based on solid spiritual and social foundations) that try to contribute to the education of youth and help them build supportive, personal and family relationships.

Based on this concept of education, the extracurricular sphere has been rediscovered as a privileged environment to contribute to holistic student development. We understand holistic development as encompassing the education of the whole person, based on the four fundamental and interdependent dimensions of the "Ledesma-Kolvenbach Paradigm" ("humanitas", "iustitia", "fides" and "utilitas") (Villa Sánchez & Lemke Duque, 2016). More specifically, the extracurricular sphere is a great opportunity to promote a more competent graduate profile through continually reinventing itself, both professionally, personally and spiritually. Thus, this form of education allows students to develop their personal skills to build individuals open to transcendence, capa-

ble of interiorising ideas, learning throughout life, adapting effectively to

changing realities, enriching previous learning and complementing what they learned and worked in academia (Bakoban & Aljarallah, 2015; Li, 2017).

## EXTRACURRICULAR ACTIVITIES

Extracurricular activities (also known as ECAs) are activities that complement curricular education and are carried out on a voluntary basis, outside of school hours, which contribute to students' personal, spiritual, professional and social development. Some of the most common activities include spiritual, volunteer, cultural, artistic, sports activities and the student associations (Díaz-Iso et al., 2020a).

In order to understand the origin and development of this form of training, it is necessary to go back to the 80s, when Pascarella (1980) and Astin (1894) pointed out that becoming involved in the university community improved student performance at university. Based on these findings, a line of action emerged that advocates the usefulness of extracurricular training to get students involved in the university community.

“*We understand holistic development as encompassing the education of the whole person, based on the four fundamental and interdependent dimensions of the “Ledesma-Kolvenbach Paradigm” (“humanitas”, “iustitia”, “fides” and “utilitas”)*”

Early in 2000, the academia argued that extracurricular training mainly resulted in enhanced professional development and greater employability. At that time, research such as that conducted by Belikova (2002) referred to ECAs as voluntary activities in which students participated in their leisure time, and there was a general tendency to define them by type.

Between 2010 and 2015, there was increasing evidence linking ECAs with functions such as improving the environment in which we live, the academic performance or well-being of participants. Thus, authors like Thompson et al. (2013) and Bakoban y Aljarallah (2015) started to define ECAs as activities that result in benefits for the community and serve to put into practice the knowledge learned in the classroom.

As of 2016, the potential that ECAs have to foster spaces of trust that promote students' interaction and integration with their peers, with people of other cultures, religions and ideologies, with the academic or services staff (Díaz-Iso et al., 2020b; Girbés-Peco et al., 2018). Also, as shown by Bubnys (2019), ECAs are considered to promote reflective

processes that help students to assimilate, understand, exchange and analyse different viewpoints to be able to understand how other people see the world and, on the other hand, to better understand themselves, their needs and problems, their personal strengths and limitations.

Therefore, in recent years, opportunities in the extracurricular sphere are increasingly being valued as a way to expand or explore new interests in students. These can help them to feel better, enhance their self-confidence and be more motivated to integrate new knowledge and skills, while at the same time can be useful to improve their professional development and the learning acquired in the curricular field (Díaz-Iso et al., 2019).

## TYPE OF EXPERIENCE

This paper describes an extracurricular activity that young people from the University of Deusto carried out in Tangier for 10 days. It should be noted that this experience is offered by the Deusto Campus Unit at the University of Deusto. This Unit is in charge of managing and offering extracurricular activities on the Bilbao and San Se-

bastian Campuses, and consists of four areas: faith, solidarity, sports and culture. This particular experience is part of the solidarity area.

During the extracurricular volunteer experience, students participate in three different social projects:

**Figure 1. Social projects in which students participate in the extracurricular volunteer experience. Compiled by authors.**



1. **The Dar Al Baraka project of Casa Nazaret** is a foster home that provides assistance to 10 people with intellectual and/or physical disabilities to people who do not have family assistance or resources to live on their own.
2. **The Dar Tika project** is a reception centre that

incorporates medical, psychological and social monitoring of girls aged 11 to 14 years without a family, who have ended up living on the street and/or have suffered abuse and attacks, and are therefore at serious risk of social exclusion.

3. **The Padre Lerchundi project** is a day centre for children aged 6 to 16 years, enrolled in a Moroccan public school, where they go outside their class hours. There they eat, play and receive school support, since their parents cannot take care of them due to precarious family situations. Hence, this centre prevents them from falling prey to criminal networks or developing bad habits on the street.

The students worked primarily on the Dar Al Baraka project at Casa Nazaret. They were in charge of offering accompaniment in day-to-day activities to people with disabilities living in the centre. The aim of the accompaniment was to help them establish a daily routine to be more autonomous in their everyday activities such as eating, dressing, walking, etc. Furthermore, every morning, a small group of students had the opportunity to give school support and accompaniment during their leisure time in the Padre Lerchundi project. All the participants were also able to visit the Dar Tika project for one whole morning and learn about the main lines of action of

the project. Finally, the participants learned about the situation on the southern border of Ceuta, where they had the opportunity to visit the fence and learn about the harsh reality experienced by people who want to emigrate in search of better living conditions.

The entire volunteer group shared the housework throughout the week, and at the end of each day, the students carried out an Ignatian examination of conscience led by the instructor. In these encounters, the students, through interaction with their fellow students and mutual help, recalled how the day had gone, shared different knowledge, reflections and feelings experienced during the day with the aim of enriching their experience and learning.

## CONTEXT OF THE EXPERIENCE

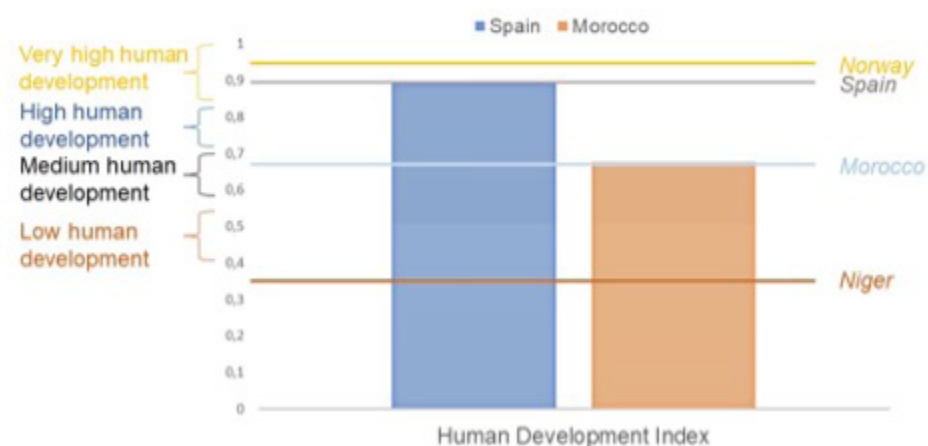
Students from the University of Deusto (Spain) carried out this international short-term volunteering experience in Tangier (Morocco).

The University of Deusto is a Jesuit institution founded in 1886 by the Society of Jesus. The ownership of the university institution where students pursue their undergraduate studies is a social, non-profit initiative, so students are charged moderate tuition fees. This means that the students' socio-economic background is mostly middle class and, to a lesser

extent, upper-middle class. However, a very significant number of students also study with financial aid from the university and other external organisations, which are processed by the university.

It should also be noted that, according to the 2019 Human Development Report carried out by the United Nations Development Programme (Conceição, 2019) Spain, with an HDI of 0.893, is positioned as the 26th most developed country in the Human Development Index; while Morocco (HDI = 0.676), where they live the volunteer experience, ranks 121st. This extracurricular volunteering activity aims to provide students with a group experience in a developing country, and offer them the opportunity to experience a culture other than their own and become acquainted with the reality of immigration on the other side of the border.

**Figure 2. Score obtained in each country according to the Development Report published in 2019. Adapted from Díaz-Iso et al. (2020b).**



## OBJECTIVES AND METHODOLOGY

The extracurricular volunteer activity was designed to meet several objectives. On the one hand, three learning objectives for university students:

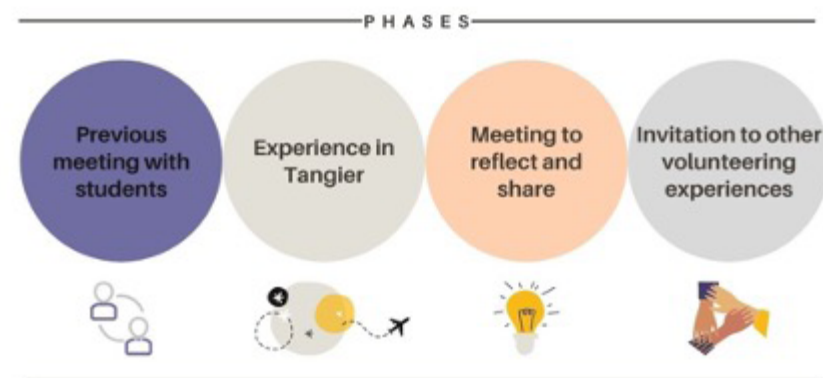
- Participate in social projects with socially vulnerable groups such as people with intellectual and/or physical disabilities, mental illnesses, immigrants, pregnant women abandoned by their families, minors and children at risk of social exclusion, in a different cultural context from their own.
- Reflect and feel responsible for the inclusion of vulnerable people, from the perspectives and procedures of their academic discipline.
- Enjoy a group experience in a developing country, with students from different university degrees.

On the other hand, the aim of this Deusto Campus solidarity area is to:

- Promote a profile of students aware of the social challenges facing the world today.
- Foster spaces of trust to enhance students' interaction and integration with their peers, with people from other cultures, religions and ideologies, with academic and services staff, etc.
- Give students the opportunity to create close ties with the community.
- Promote personal attitudes among students that allow to progress towards fairer, more humane and sustainable societies.

Regarding the methodology, it should be noted that this volunteering practice consists of four main phases:

**Figure 3. Main phases of the volunteering experience. Compiled by authors.**



As shown in figure 3, prior to the extracurricular experience, a meeting is held with participants to present the different social projects. Afterwards, the young people live a 10-day experience accompanied by an instructor. After the volunteer activity, and knowing the reality of the border, a group meeting is held to collect the lived experience. In addition, for those people who feel called, they will be able to continue collaborating in other associations and projects on a voluntary basis.

## RESULTS OBTAINED

The benefits listed below are based on two studies (Díaz-Iso et al., 2019, 2020b) conducted by researchers from the University of Deusto. Open in-depth interviews were used for data collection in the research. A total of 46 interviews (23 pre-interviews and 23 post-interviews) were undertaken with the 23 students who took part in the extracurricular volunteer experience in 2019.

In the interviews conducted with the students, six different benefits were pointed out (figure 4). The four benefits identified in the interviews before living the experience refer to psychological well-being, professional development, professional and academic experience and more extensive university experience.

In the interviews conducted with the students after living the experience, they also mentioned two further benefits: understanding of socio-cultural realities and attitude towards social transformation.

Before and after participating in the experience, students perceive that interacting with other students and with people at risk of social exclusion can help them improve both their academic and professional performance. Thus, on the one hand, they consider that it can serve to complement the theoretical knowledge they have acquired throughout the degree and give them a more practical and social perspective. On the other hand, they believe that it can help them gain professional experience and develop skills such as cooperation, communication and initiative, which may enhance future professional performance.

In this regard, as one participant said, “with this kind of volunteer experience you acquire knowledge that you have worked on theoretically, but until you put it into practice, you don’t really internalise it” (participant 22). Another pointed out “I think it helps to interact with different students from different degrees, above all, and create a spirit of doing things within the university” (participant 4).

The people interviewed also agreed that offering this type of experience, which allows to interact

**Figure 4: Benefits perceived by students participating in the ECA. Compiled by authors.**



with peers and people living in different socio-cultural contexts, has enriched their university experience. It has also helped them to reflect on their own actions and privileges and develop a positive attitude towards other people. This, in turn, is linked to obtaining higher levels of well-being to enhance confidence or self-esteem. One student, for example, said “although logically you are going to have hard times, personally I think it makes you feel better, you feel more self-fulfilled; it makes you feel that you cooperate, that you are involved, it makes you feel good” (participant 15).

The interviews carried out also reveal the possibility offered by this volunteering activity to understand other social realities and different mindsets, while

at the same time it allows to reflect on one’s own values. Similarly, this experience has helped them to become aware of other sociocultural realities and reflect on possible ways to contribute to society. This involves developing ongoing, quality interactions with close people such as family and friends, and continuing to participate in volunteering with other associations.

Furthermore, it should be noted that before the experience, students believed that volunteering could be useful for their personal development, while after living an experience full of interactions, their focus is no longer on personal aspects and opens up to other global and social realities. One student, for example, says after the experience “I want to smile at life and help people and even if things don’t work out, I’ll keep going; if I succeed, I’ll be glad about it; If my friend manages to get what she wants, I’ll be glad for her. If she can’t, I’ll help her ” (participant 19).

## REFLECTIONS FROM EXPERIENCE

Regarding the reflections drawn by students from their participation in the volunteering activity, there are six main thematic areas: reflections on the volunteer work performed, the experience lived on the border, the work carried out in the different projects, the possible organisational changes, personal and social, the range of social realities observed and the

personal meaning of the experience (figure 5).

**Figure 5: topics on which students reflect after living the volunteer experience. Compiled by authors.**



This activity allows students to reflect on their own attitudes, actions and changes that they could carry out in their daily lives. In this way, after having experienced a disruptive situation, students have been able to examine their self-perception in relation to what they believe, who they think they are, and about how they can undertake or continue to build a more sustainable society for everyone.

Finally, it should therefore be noted that participation in this activity has a positive impact on students’ holistic education, promoting not only their personal development, but also moving towards a more sustainable social development.



## LESSONS LEARNED

Regarding the lessons learned, students perceive that participating in the different social projects, accompanied by a group and an instructor has allowed them to develop their reflective skills.

On the one hand, the volunteers point out that actual on-site fieldwork, participating in various social projects, has helped them become aware of different social realities and appreciate their own privileges. On the other hand, they value the experience as a very positive opportunity to create spaces where it is possible to reflect as a group, and each person can contribute different perspectives, thoughts or ideologies. The interaction between equals has allowed the student group to carry out a process of mutual knowledge construction that has enriched both their own reflection and the experience. They also point out that the role played by the instructor is very useful when it comes to generating a safe space of support and trust that will invite reflection. Specifically, they report that the instructor, through the Ignatian examination of conscience he prepared every day, has managed to motivate them to reflect, better understand the situations they were experiencing, resolve doubts and clarify ideas by creating a climate of trust and freedom.

Finally, the extracurricular experience is not only based on the 10 days lived in Tangier, but also on

the before and after meetings, where they can share and reflect on the lessons learned.

Therefore, this good practice shows us that it is possible to move towards a responsible, quality higher education system that provides people with comprehensive training. This training goes beyond academic results and focuses on the range of skills that are necessary to form more humane persons, who know how to coexist in this diverse, constantly changing world.

This paper is a step forward on the road to implementing effective and quality interventions in Jesuit institutions, which may provide students with tools to better grasp the meaning of who they are and where they heading. It is nothing less than a good practice that aims to shed light on the process of forming fairer, more sustainable people and societies.

## OPPORTUNITIES FOR IMPROVEMENT

Here are some key elements to consider for the design and implementation of ECAs to achieve the benefits discussed above.

**Table 1. Key elements to consider for the design and implementation of ECAs. Adapted from Díaz-Iso et al., (2020a).**

|                |  |
|----------------|--|
| Academic staff | <ul style="list-style-type: none"> <li>● Raise awareness and inform academic staff about the positive impact that ECAs have on educational outcomes and student life.</li> <li>● Assess the participation of academic staff in ECAs, supporting students and/or instructors.</li> <li>● Provide activities that are perceived as relevant by academic staff.</li> </ul>  |
| Students       | <ul style="list-style-type: none"> <li>● Encourage students to participate in ECAs.</li> <li>● Assess student participation in ECAs.</li> </ul>  |
| Managers       | <ul style="list-style-type: none"> <li>● Offer a wide range of high quality, structured ECAs that pay attention to students' opinion and interests.</li> <li>● Adapt ECAs to the educational institution itself, to the programme types, the specialist fields and students' characteristics, including their cultural and social backgrounds.</li> <li>● Offer activities that produce positive feelings, which are perceived as relevant by students and provide a sense of connection with other people.</li> <li>● Carry out regular satisfaction surveys on the ECAs offered by the institution.</li> </ul> |
| Institution    | <ul style="list-style-type: none"> <li>● Invest the necessary funds to enable a wide range of ECAs, and have a coordinating unit for ECA activities in the institution.</li> <li>● Disseminate the benefits and usefulness of participating in ECAs.</li> <li>● Review the policies for the recognition and promotion of academic staff.</li> <li>● Review student training programmes and design ECAs that complement academic training.</li> </ul>   |

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## "The impact of a volunteering experience in the southern border (Spain and Morocco) on the integral development of university students"

### ABSTRACT

The Society of Jesus, being highly aware of the importance of facing the different social challenges, establishes the Universal Apostolic Preferences highlighting the need, not only of working against poverty but also of promoting educative experiences that seek a comprehensive formation for the youth. In this sense, the extra-curricular space, that goes beyond classes and includes sporty, cultural, and voluntary activities among others, has been rediscovered as a privileged scene for contributing to integral development.

This article describes the extra-curricular voluntary experience of young people from the University of Deusto living on the border between Spain and Morocco. More precisely, it is highlighted the value that has this activity helping to build a shared knowledge with other people; improve the students' academic and professional development; develop personal and social skills that contribute to their comprehensive development; and assume a greater compromise and responsibility about their daily actions. Also, it is gathered some of the key elements that need to be taken into account in Higher Education Jesuit Institution in order to achieve the benefits described previously.

### THE INITIATIVE

The authors highlight the **value of extra-curricular activities** to promote a comprehensive formation among the youth aimed at social personal transformation. They describe a voluntary experience organized by the University of Deusto in Tanger. The experience involves **three different projects**:

- **Dar Al Baraka from Home Nazaret project:** a shelter home that fosters 10 people with an intellectual or physical disability, people with no family assistance or resources to live on their own.
- **Dar Tika project:** it is a safe house where they offer medical and psychological monitoring for girls from 11 to 14 years old that have no family and live in the streets or that have suffered aggression and are at risk of social exclusion.
- **Father Lerchundi project:** daycare center for children from 6 to 16 years old, whose family cannot take care of them, they go there when they are not in school to eat, play and have school support and prevent them from bad lifestyle habits.

| LEARNING GOALS FOR STUDENTS   | OBJECTIVES   | HUMANITARIAN |
|---|--|--------------|
| <ul style="list-style-type: none"> <li>Enroll in <b>social projects with vulnerable groups</b></li> <li><b>Reflect and feel responsible for the inclusion of vulnerable people</b>, from their academic discipline perspective and procedures</li> <li>Go through a <b>group experience</b>, with students from different university degrees, in a <b>developing country</b></li> </ul> | <ul style="list-style-type: none"> <li>Promote a student's profile <b>awareness of social challenges</b></li> <li>Encourage a <b>safe space</b> where students' interaction and integration with others is fostered</li> <li>Allow students to <b>create ties with the community</b></li> <li>Favor <b>personal attitudes</b> among students that help in advancing <b>more human, just and sustainable societies</b></li> </ul> |              |

### LESSONS LEARNED

- Physical contact through participation in different social projects made students more aware of the different social realities and value their privileges.
- Students think it is a very good experience for creating a space where it is possible to reflect in groups and express different perspectives, beliefs, and ideologies.
- Working as equals allowed students to carry out a joint process of knowledge building that enriched their reflection and experience.
- The instructor role is pointed out as very useful in creating a safe supportive and confident space
- This extracurricular experiences not only entails the stay in Tanger, but also previous and later encounters where students can reflect and share their learnings

### RESULTS

Students highlight five gains from these experience



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# "El impacto de una experiencia de voluntariado en la frontera sur (España y Marruecos) en el desarrollo integral de los estudiantes universitarios"

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### ABSTRACT

La Compañía de Jesús muy consciente de la importancia de hacer frente a los diferentes retos sociales, establece las Preferencias Apostólicas Universales en la que se destaca la necesidad de, además de trabajar para erradicar la pobreza, promover experiencias educativas que traten de contribuir a la formación integral de los jóvenes. En este sentido, se ha redescubierto el espacio extracurricular, que trasciende las aulas e incluye actividades deportivas, culturales, de voluntariado, etc., como un ámbito privilegiado para contribuir al desarrollo integral. En este trabajo se describe una experiencia extracurricular de voluntariado que jóvenes de la Universidad de Deusto viven en la frontera sur entre España y Marruecos. Más concretamente, se destaca el valor que tiene esta actividad de voluntariado para construir conocimiento compartido con otras personas; para mejorar el desempeño académico y profesional del alumnado universitario; para desarrollar habilidades personales y sociales que

contribuyen en su desarrollo integral; y para asumir un mayor compromiso y responsabilidad con las propias acciones del día a día. Además, también se recogen algunos elementos clave a considerar en las instituciones de educación superior jesuitas para que el diseño e implementación de las ECA logren los beneficios anteriormente expuestos.

## DESCRIPCIÓN

Hoy en día las sociedades se enfrentan a desafíos complejos de tipo social, político, económico y medioambiental. Estos desafíos deben ser abordados desde los diversos ámbitos sociales. En este contexto, las universidades jesuitas, como instituciones inmersas en la sociedad, tienen el reto de enfocar la educación hacia una formación integral orientada a la transformación social y personal del alumnado (Aktas et al., 2015; Kagawa, 2007).

Para hacer frente a estos retos, el Consejo de Seguridad de las Naciones Unidas inició el proceso para definir los Objetivos de Desarrollo Sostenible, que establece metas en 17 áreas sociales y ecológicas hasta el año 2030 (UNESCO, 2017). Las universidades jesuitas de todo el mundo también están convocadas a contribuir a esta agenda internacional. En particular, tienen la responsabilidad de promover prácticas educativas que formen alumnado con conocimientos, valores y actitudes que le capacite para adoptar una ciudadanía activa.

Asimismo, la Compañía de Jesús muy consciente de

la importancia de hacer frente a los diferentes retos sociales, ha establecido las Preferencias Apostólicas Universales (2019) que guiarán el trabajo de la Compañía en los próximos años hasta 2029. Estas preferencias ayudan a las instituciones de enseñanza a focalizar sus actuaciones por y para la misión e invitan, además de a caminar con los excluidos, a promover experiencias y oportunidades (basadas en sólidos fundamentos espirituales y sociales) que traten de contribuir a la formación de los jóvenes y les ayude a construir relaciones de apoyo, personales y familiares.

En esta concepción de la educación, se ha redescubierto el espacio extracurricular como un ámbito privilegiado para contribuir al desarrollo integral del estudiantado. Entendemos como desarrollo integral formar a la persona completa, en base a las cuatro dimensiones fundamentales e interdependientes del “Paradigma Ledesma-Kolvenbach” (“humanitas”, “iustitia”, “fides” y “utilitas”) (Villa Sánchez & Lemke Duque, 2016). Más concretamente, el espacio extracurricular es una gran oportunidad para promover un perfil del egresado más competente y en con-

tinua reinven- ción, tanto a nivel profesio- nal como per- sonal y espiri- tual. Así, este

tipo de formación permite al alumnado desarrollar habilidades personales para a construir personas abiertas a la trascendencia, capaces de interiorizar, de aprender a lo largo de la vida, de adaptarse de manera eficaz a realidades cambiantes, de enriquecer aprendizajes previos y complementar lo aprendido y trabajado en el ámbito académico (Bakoban & Aljarallah, 2015; Li, 2017).

## LAS ACTIVIDADES EXTRACURRICULARES

Las actividades extracurriculares (también denominadas ECA) son actividades que complementan la formación curricular, que se llevan a cabo de forma voluntaria, fuera del horario lectivo, y que contribuyen al desarrollo personal, espiritual, profesional y social del alumnado. Entre las más habituales se encuentran las actividades espirituales, de voluntariado, culturales, artísticas, deportivas y el club de estudiantes (Díaz-Iso et al., 2020a).

Para entender el origen y desarrollo de este tipo de formación, es necesario remontarnos a los años 80, cuando Pascarella (1980) y Astin (1894) señalaron que involucrarse en la comunidad universitaria me-

“**Entendemos como desarrollo integral formar a la persona completa, en base a las cuatro dimensiones fundamentales e interdependientes del “Paradigma Ledesma-Kolvenbach” (“humanitas”, “iustitia”, “fides” y “utilitas”)**”

toraba los re- sultados que el alumnado extraía de la universidad. Tomando es-

tos hallazgos como base, nace una línea de trabajo que aboga por la utilidad de la formación extracurricular para conseguir que el alumnado se involucre en la comunidad universitaria.

A principios del 2000, en el mundo académico se argumentaba que la formación extracurricular, sobre todo, revertía en un mayor desarrollo profesional y mayores posibilidades para encontrar empleo. En esta época, investigaciones como las de Belikova (2002) se referían a las ECA como actividades voluntarias en las que el alumnado participaba en su tiempo libre y había una tendencia generalizada a definir las haciendo referencia a su tipología.

Entre el año 2010 y el 2015, incrementan las evidencias que relacionan las ECA con funciones tales como mejorar el entorno en el que vivimos, el rendimiento académico o el bienestar de la persona que participa. Así, autores como Thompson et al. (2013) y Bakoban y Aljarallah (2015) comienzan a definir las ECA como actividades que redundan en un beneficio comunitario y que sirven para poner en práctica los conocimientos aprendidos en el aula.

A partir del 2016, se empieza a valorar el potencial que tienen las ECA para fomentar espacios de confianza en los que se potencia la interacción e integración del alumnado con sus iguales, con personas de otras culturas, religiones e ideologías, con docentes o personal de servicios (Díaz-Iso et al., 2020b; Girbés-Peco et al., 2018). También, tal y como indica Bubnys (2019), se considera que gracias a las ECA se promueven procesos reflexivos que ayudan al alumnado a asimilar, entender, intercambiar y analizar diferentes puntos de vista para ser capaces de comprender cómo ven el mundo otras personas, y por otra parte, para comprenderse a sí mismas, sus necesidades y problemas, sus fortalezas personales y limitaciones.

Por tanto, en los últimos años, se está valorando cada vez más las oportunidades del ámbito extracurricular para ampliar o explorar nuevos intereses del alumnado que le ayude a sentirse mejor, tener mayor confianza y estar más motivado para integrar nuevos conocimientos y habilidades, que a su vez pueden ser útiles para mejorar su desarrollo profesional y los aprendizajes adquiridos en el ámbito curricular (Díaz-Iso et al., 2019).

## TIPO DE EXPERIENCIA

En este documento se describe una actividad extracurricular que jóvenes de la Universidad de Deusto llevan a cabo en Tánger durante 10 días. Cabe destacar que esta experiencia se ofrece desde la Unidad de Deusto Campus de la Universidad de Deusto. Esta Unidad se encarga de la gestión y la oferta de las actividades extracurriculares en el Campus de Bilbao y San Sebastián, y está formada por 4 áreas: fe, solidaridad, deportes y cultura. Esta experiencia en concreto forma parte del área de solidaridad. Durante la experiencia extracurricular de voluntariado el alumnado participa en tres proyectos sociales diferentes:

**Figura 1. Proyectos sociales en los que el alumnado participa en la experiencia extracurricular de voluntariado. Elaboración propia.**



1. **El proyecto Dar Al Baraka de Casa Nazaret** es un hogar de acogida que brinda asistencia a 10 personas con discapacidad intelectual y/o física, a personas que no cuentan con asistencia familiar o recursos para vivir por su cuenta.
2. **El proyecto Dar Tika** es un centro de acogida que incorpora el seguimiento médico, psicológico y social de niñas entre 11 y 14 años sin familia que han acabado viviendo en la calle y/o han sufrido malos tratos y agresiones y, por tanto, están en grave riesgo de exclusión social.
3. **El proyecto Padre Lerchundi** es un centro de día en el que niños de 6 a 16 años, matriculados en la escuela pública marroquí, asisten durante las horas en las que no tienen clase para comer, jugar y recibir apoyo escolar, ya que sus padres no pueden hacerse cargo de ellos debido a la precariedad económica y familiar, y con ello este centro evita que caigan en redes de malhechores o desarrollen malos hábitos en la calle.

Los estudiantes trabajaron principalmente en el proyecto Dar Al Baraka en la Casa Nazaret. Se encargaron de ofrecer acompañamiento en las actividades del día a día a las personas con discapacidad que viven en el centro. El objetivo del acompañamiento era ayudarles a establecer una rutina diaria para ser más autónomos en las actividades cotidianas como

comer, vestirse, pasear, etc. Además, cada mañana, un grupo reducido de estudiantes tenía la oportunidad de dar apoyo escolar y acompañamiento en el tiempo libre en el proyecto de Padre Lerchundi. Durante una mañana todos los participantes también pudieron visitar el proyecto Dar Tika y conocer las principales líneas de actuación del proyecto. Por último, los participantes conocieron la situación de la frontera sur de Ceuta donde tuvieron la oportunidad de visitar la valla y conocer la dura realidad que viven las personas que quieren emigrar en busca de mejores condiciones de vida.

Todo el grupo de voluntarios compartió durante toda la semana las tareas domésticas, y al final de cada día los estudiantes realizaban un examen de conciencia ignaciano dinamizado por el instructor. En estos encuentros, los estudiantes, a través de la interacción con sus compañeros y la ayuda mutua, desgranaban y recordaban cómo había ido el día, compartían diferentes conocimientos, reflexiones y sensaciones vividas durante el día con el objetivo de enriquecer la experiencia y el aprendizaje.

## CONTEXTO EN EL QUE SE LLEVA A CABO LA EXPERIENCIA

Esta experiencia de voluntariado internacional de corta estancia en Tánger (Marruecos) la llevan a cabo estudiantes de la Universidad de Deusto (Es-

paña).

La Universidad de Deusto es una institución jesuita, fundada en 1886 por la Compañía de Jesús. La titularidad de la institución universitaria en la que los estudiantes cursan sus estudios de grado es de

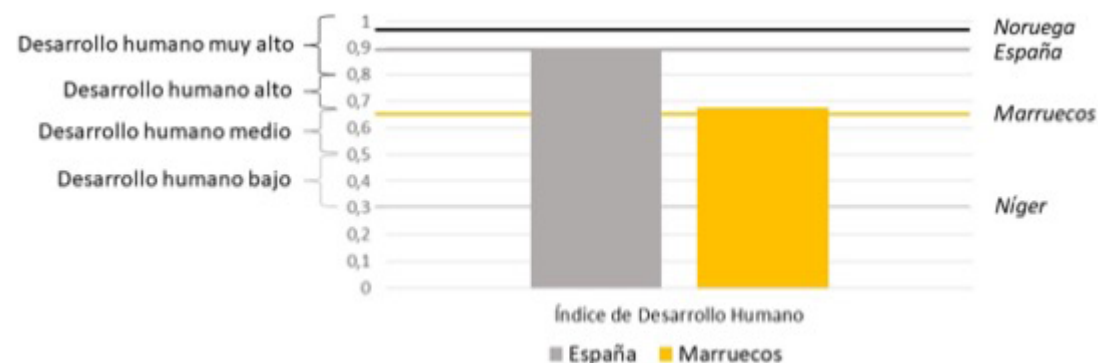
iniciativa social y sin ánimo de lucro, por lo que estos estudiantes afrontan el pago de unas tasas académicas de cuantía moderada. Ello hace que la extracción socioeconómica de este estudiantado sea mayoritariamente de nivel

medio y, en menor medida, medio-alto. Sin embargo, un número muy relevante de estudiantes cursan también sus estudios con ayudas económicas de becas propias de la universidad y de otros agentes externos, con la tramitación por la universidad.

Cabe destacar también que según el Informe sobre Desarrollo Humano de 2019 realizado por el Programa de las Naciones Unidas para el Desarrollo (Conceição, 2019), España, con un HDI de 0.893, se posiciona como el vigesimosexto país más desarrollado en el Índice de Desarrollo Humano; mientras que Marruecos (HDI=0.676), lugar donde viven la

experiencia de voluntariado, ocupa el puesto 121. Esta actividad extracurricular de voluntariado busca que el alumnado viva una experiencia en grupo en un país en desarrollo, contacte con otra cultura y conozca la realidad de la inmigración al otro lado de la frontera.

**Figura 2. Puntuación obtenida en cada país según el Informe de Desarrollo publicado en 2019. Adaptada de Díaz-Iso et al. (2020b).**



## OBJETIVOS Y METODOLOGÍA

La práctica extracurricular de voluntariado fue diseñada con el fin de cumplir varios objetivos. Por un lado, 3 objetivos de aprendizaje para el alumnado universitario:

- Participar en proyectos sociales con colectivos socialmente vulnerables como personas con discapacidad intelectual y/o física, con enfermedades mentales, inmigrantes, mujeres embarazadas abandonadas por sus familias, menores y niños y niñas en riesgo de exclusión social, en un contexto cultural diferente del propio.

- Reflexionar y sentirse responsable de la inclusión de las personas vulnerables, desde las perspectivas y procedimientos propios de su disciplina académica.

- Vivir una experiencia en grupo, con estudiantes que están cursando grados universitarios diferentes, en un país en vías de desarrollo.



Por otro lado, el área de solidaridad de Deusto Campus tiene como objetivos con esta experiencia:

- Promover un perfil de alumnado consciente de los retos sociales que vivimos hoy día en el mundo.
- Fomentar espacios de confianza en los que se potencia la interacción e integración del alumnado con sus iguales, con personas de otras culturas, religiones e ideologías, con profesores, personal de servicios, etc.
- Dar al alumnado la oportunidad de crear vínculos estrechos con la comunidad.
- Propiciar actitudes personales entre el alumnado que permitan avanzar hacia sociedades más humanas, justas y sostenibles.

Respecto a la metodología, cabe destacar que esta

práctica de voluntariado consta de 4 fases principales:

**Figura 3. Fases principales de la experiencia del voluntariado. Elaboración propia.**

Tal y como se muestra en la figura 3, previo a la experiencia extracurricular, se lleva a cabo un encuentro con las personas que van a participar para conocerse y presentarles los diferentes proyectos sociales. Después, los jóvenes viven una experiencia de 10 días acompañados por un instructor. Tras la actividad de voluntariado, y conocida la realidad de la frontera, se lleva a cabo un encuentro de grupo para recoger la experiencia vivida. Además, para aquellas personas que se sientan llamadas podrán seguir colaborando en otras asociaciones y proyectos de manera voluntaria.

## RESULTADOS OBTENIDOS

Los beneficios que se exponen a continuación parten de dos estudios (Díaz-Iso et al., 2019, 2020b)

llevados a cabo por investigadoras de la Universidad de Deusto. La técnica de recolección de datos empleada en el estudio ha sido la entrevista abierta en profundidad. Se llevaron a cabo 46 entrevistas (23 pre-entrevistas y 23 post-entrevistas) a los 23 estudiantes que formaron parte en la experiencia extracurricular de voluntariado en el año 2019.

En las entrevistas que se realizaron a los estudiantes, se distinguen 6 beneficios diferentes (figura 4). Los 4 beneficios identificados en las entrevistas que se realizaron a los estudiantes antes de vivir la experiencia aluden al bienestar psicológico; desarrollo profesional; experiencia profesional y académica; y experiencia universitaria más extensa.

En las entrevistas que se realizaron a los estudiantes después de vivir la experiencia, además, el alumnado habla también de otros 2 beneficios más: comprensión de realidades socioculturales y actitud para la transformación social.

Antes y después de participar en la experiencia el alumnado percibe que interactuar con otros estudiantes y con personas en riesgo de exclusión social puede ayudarles a mejorar tanto su práctica académica como profesional. Así, por un lado, consideran que puede servirles para complementar los conocimientos teóricos que han ido adquiriendo durante la titulación y darles un sentido más práctico y

**Figura 4: beneficios percibidos por los estudiantes que participan en la ECA. Elaboración propia.**



social. Por otro lado, creen que les puede ayudar para adquirir experiencia profesional y desarrollar habilidades, tales como la cooperación, la comunicación y la iniciativa, que favorezcan el desempeño profesional futuro.

En esta línea, un participante indica que “con este tipo de experiencias de voluntariado vas adquiriendo conocimientos que has trabajado teóricamente, pero hasta que los pones en práctica, realmente no los interiorizas” (participante 22). Otro señala “Yo creo que ayuda a conectar con diferentes estudiantes de diferentes carreras, sobre todo, y crear un espíritu de hacer cosas dentro de la universidad” (participante 4).

Las personas entrevistadas, también corroboran que ofertar este tipo de experiencias en las que es posible interactuar con iguales y con personas que viven en contextos socioculturales diferentes ha enriquecido su experiencia universitaria, y les ha servido para reflexionar sobre las propias acciones y los privilegios, así como para desarrollar una actitud positiva hacia las demás personas. Esto a su vez, está ligado con la obtención de mayores niveles de bienestar que permiten potenciar la confianza o la autoestima. Una estudiante, por ejemplo, dice “aunque lógicamente vas a tener momentos duros, personalmente yo creo que te hace sentir mejor, te sientes más autorrealizada, te hace sentir que cooperas, que estás implicada, te hace sentir bien” (participante 15).

Las entrevistas realizadas también ponen de manifiesto la posibilidad que ofrece esta actividad de voluntariado para comprender otras realidades sociales, distintas formas de pensar, así como para reflexionar sobre los propios valores. Del mismo modo, esta experiencia les ha ayudado a sensibilizarse con otras realidades socioculturales y a reflexionar sobre posibles formas de contribuir a la sociedad. Esta contribución se configura desde seguir estableciendo interacciones de calidad con personas cercanas como familiares y amistades hasta seguir participando en voluntariados de otras asociaciones.

Además, cabe destacar que antes de vivir la experiencia, el alumnado cree que el voluntariado puede ser útil para su desarrollo personal, mientras que después de vivir una experiencia repleta de interacciones, la mirada deja de estar tan centrada en aspectos personales y se abre a otras realidades del mundo y sociales. Una estudiante, por ejemplo, después de la experiencia destaca “Voy a sonreír a la vida y ayudar a la gente y aunque las cosas no salgan voy a seguir adelante, si lo consigo lo celebro; si mi amiga es capaz de conseguir lo que ella quiere, lo celebro con ella. Si no puede, la ayudo” (participante 19).

## REFLEXIONES EXTRAÍDAS DE LA EXPERIENCIA

Respecto a las reflexiones que los estudiantes extraen de la participación en la actividad de voluntariado se distinguen 6 temáticas: reflexiones sobre el trabajo voluntario llevado a cabo, la experiencia vivida en la frontera, los trabajos realizados en los distintos proyectos, los posibles cambios organizativos, personales y sociales, las distintas realidades sociales observadas y el significado personal de la experiencia (figura 5).

Esta actividad permite al alumnado reflexionar sobre sus propias actitudes, actuaciones y cambios que podrían llevar a cabo en su vida cotidiana. De esta manera, el alumnado, pasando por una situa-

**Figura 5: temáticas sobre las que reflexiona el alumnado después de vivir la experiencia de voluntariado. Elaboración propia.**



ción desestabilizadora, ha sido capaz de examinar su propia visión de sí mismos con respecto a lo que creen, quiénes creen que son y sobre cómo pueden emprender o continuar construyendo una sociedad más sostenible para todo el mundo.

Para finalizar, cabe destacar que la participación en esta actividad, por tanto, repercute de manera positiva en la formación integral del alumnado, favoreciendo no solo su desarrollo personal, sino también avanzar hacia un desarrollo social más sostenible.

## LECCIONES APRENDIDAS

Respecto a las lecciones aprendidas, el alumnado percibe que participar en los diferentes proyectos

sociales y acompañados por un grupo y un instructor les ha permitido desarrollar sus habilidades reflexivas.

Por un lado, las personas voluntarias señalan que el contacto físico en el terreno, participando en diferentes proyectos sociales, les ha ayudado a ser consciente de distintas realidades sociales y a valorar los propios privilegios. Por otro lado, valoran la experiencia como una oportunidad muy positiva para crear espacios donde es posible reflexionar en grupo y cada persona puede aportar diferentes perspectivas, pensamientos o ideologías. La interacción entre iguales ha permitido al grupo de estudiantes llevar a cabo un proceso de construcción del conocimiento conjunta que ha enriquecido tanto la propia reflexión como la experiencia. También se expone que el rol del instructor es muy útil a la hora de generar un espacio seguro de apoyo y confianza que invitara a la reflexión. En concreto, señalan que este, a través del examen de conciencia ignaciano que preparaba cada día, ha conseguido motivarles a reflexionar, comprender mejor las situaciones que estaban viviendo, resolver dudas y aclarar ideas, a través de crear un clima de confianza y libertad.

Por último, la experiencia extracurricular no solo se basa en los 10 días vividos en Tánger, sino que también en los encuentros previos y posteriores en los que es posible compartir y reflexionar sobre los

aprendizajes adquiridos.

Esta buena práctica, por tanto, nos muestra que es posible avanzar hacia un sistema educativo superior responsable y de calidad que forme personas de forma integral. Esta formación va más allá de los resultados académicos y tiene en cuenta las diferentes habilidades que son necesarias desarrollar para formar personas más humanas que sepan convivir en este mundo tan plural y en constante cambio.

El trabajo que se presenta es un avance en el camino de implementar intervenciones efectivas y de calidad en las instituciones jesuitas, que doten al alumnado de herramientas para captar mejor el sentido de lo que son y hacia dónde van. Es, nada más y nada menos, que una buena práctica que quiere aportar luz en el proceso de formar personas y sociedades más justas y sostenibles.

## OPORTUNIDADES DE MEJORA

A continuación, se recogen algunos elementos clave a considerar para que el diseño e implementación de las ECA logren los beneficios anteriormente expuestos.

**Tabla 1. Elementos clave a considerar para el diseño e implementación de las ECA. Adaptada de Díaz-Iso et al., (2020a).**

|  | Profesorado   |
|--|---|
|  | <ul style="list-style-type: none"> <li>● Concienciar e informar al profesorado sobre el impacto positivo que tienen las ECA en los resultados educativos y en la vida estudiantil.</li> <li>● Valorar la participación del profesorado en ECA, acompañando y/o siendo instructores del estudiantado.</li> <li>● Proporcionar actividades que sean percibidas como relevantes por el profesorado.</li> </ul>   |
|  | Alumnado  |
|  | <ul style="list-style-type: none"> <li>● Animar al alumnado a participar en ECA.</li> <li>● Valorar la participación del alumnado en ECA.</li> </ul>  |
|  | Gestores  |
|  | <ul style="list-style-type: none"> <li>● Ofrecer ECA diversas, de calidad y estructuradas que presten atención a la opinión e intereses del alumnado.</li> <li>● Adaptar las ECA a la propia institución educativa, a los tipos de programas, los campos de especialidad y las características de los estudiantes, incluidos sus antecedentes culturales y sociales.</li> <li>● Proporcionar actividades que produzcan sentimientos positivos, que sean percibidas como relevantes por el alumnado y que proporcione un sentido de conexión con otras personas.</li> <li>● Realizar estudios de satisfacción periódicos sobre las ECA que ofrece la institución.</li> </ul> |
|  | Institución   |
|  | <ul style="list-style-type: none"> <li>● Invertir los fondos necesarios que posibiliten una amplia oferta de ECA, así como contar con una unidad coordinadoras de las actividades ECA en la institución.</li> <li>● Difundir los beneficios y la utilidad de participar en ECA.</li> <li>● Revisar las políticas de reconocimiento y promoción del profesorado.</li> <li>● Revisar los programas formativos de los estudiantes y diseñar ECA que complementen la formación académica.</li> </ul>  |



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## Pedagogical work as a reinforcement for the quality culture at Saint Joseph University

### ABSTRACT

The world presents new challenges, particularly in Higher Education, that question the pedagogical practices and call for revision. The experience presented in this article follows Saint Joseph University's Pedagogical Mission aimed at developing pedagogical practices and ensuring a quality formation that is ready for the XXIst century for students. Higher Education's challenge concerns, though educators' training, the students' development of required competencies for the XXIst century, to live and reinvent themselves constantly in an increasingly complex and uncertain world. Thus, the University's pedagogy faces social, economic, and political challenges. The article presents the registered initiatives, their approaches, and the evaluations extract from the testimonials gathered.

### THE INITIATIVE

The initiative arises from the need to adjust and revise pedagogical practices in Higher Education to adapt to the world's new challenges. It aimed at developing the required competencies for students to live and reinvent themselves in a constantly changing world..

#### OBJECTIVES

- Develop of a **common pedagogical culture** with a participative approach
- Mobilize** the different parties and articulate the diverse initiatives
- Developed **required needs for the XXIst century**

#### MEASURES IMPLEMENTED

- ✓ **Involve the institutions** and the people
- ✓ Give a positive image and trust to new propositions
- ✓ Get **closer to institutions** ad ensure preparatory work and a monitorization
- ✓ Ensure the people's formation inside the institution
- ✓ **Guarantee the scientific legitimacy** of the previous approach, highlighting their added value and showing their implementation

#### AXIS OF THE UNIVERSITY'S PEDAGOGICAL MISSION

- 📖 Seminars, workshops, and monitorization of institutions
- 📖 Online Education
- 📖 Elaboration of a Pedagogical handbook
- 📖 Online Pedagogical resources
- 📖 Establishment of guidelines
- 📖 Coaching: Institutional coaching, individual coaching seeking institutional development, coaching for a pedagogical formation workshop, and occasional aid.
- 📖 Compilation of good practices
- 📖 Traineeship workshop

# Chantier pédagogique pour renforcer la culture qualité à l'Université Saint Joseph de Beyrouth

DR. NADA MOGHAIZEL-NASR, LINA KOLEILAT-GHALAYINI ET WADAD WAZEN GERGY  
UNIVERSITÉ SAINT JOSEPH DE BEYROUTH, LIBAN

### ABSTRACT

Les nouveaux défis qu'affrontent le monde en général et celui de l'enseignement supérieur en particulier interrogent en profondeur nos pratiques enseignantes et imposent de les revisiter. L'expérience présentée porte sur un chantier mené par la Mission de Pédagogie universitaire (MPU) de l'Université Saint Joseph de Beyrouth (USJ) en vue de développer les pratiques pédagogiques des enseignants et assurer ainsi aux étudiants une formation de qualité, répondant aux défis du XXIème siècle. L'enjeu de la pédagogie universitaire concerne, à travers la formation des enseignants, le développement de compétences nécessaires pour le XXIème siècle, auprès de tous les étudiants, afin qu'ils puissent vivre et se réinventer sans cesse dans un monde de plus en plus complexe et incertain. La pédagogie universitaire est en effet porteuse d'enjeux sociétaux, économiques et politiques.

L'intérêt du chantier évoqué réside dans l'articulation systémique de plusieurs initiati-

ves, menées selon une démarche participative, en vue de consolider une culture pédagogique commune dans une université à l'histoire facultaire.

La présentation se penchera sur les initiatives menées, la démarche qui les a soutenues, leur évaluation à travers les témoignages recueillis. Elle proposera enfin des pistes de réflexion.

## 1. RÔLE DE LA MISSION DE PÉDAGOGIE UNIVERSITAIRE – MPU

Les nouveaux défis qu'affrontent le monde en général et celui de l'enseignement supérieur en particulier interrogent en profondeur nos pratiques enseignantes et imposent de les revisiter. La raison d'être de la Mission de Pédagogie universitaire (MPU) de l'Université Saint Joseph de Beyrouth (USJ) est de développer les pratiques pédagogiques des enseignants à l'USJ, en vue d'assurer aux étudiants une formation de qualité répondant aux défis du XXIème siècle, conformément à sa Charte et en accord avec les standards internationaux.

L'enjeu de la pédagogie universitaire n'est pas anodin. **Il concerne, à travers la formation des enseignants, le développement de compétences nécessaires pour le XXIème siècle, auprès des étudiants. Ces compétences sont vitales. Elles permettent à ceux qui en sont outillés de vivre et se réinventer sans cesse dans un monde de plus en plus complexe et incertain.** Le risque pour ceux qui en seraient privés

est de devenir « inutiles » et « insignifiants » (Harari, 2018). La pédagogie universitaire est donc porteuse d'enjeux sociétaux, économiques et politiques.

La Mission de Pédagogie universitaire a été fondée en septembre 2012 pour opérer au niveau de toute l'université. Elle a pris le relais du [Laboratoire de pédagogie universitaire](#), qui avait été constitué à [Faculté des sciences de l'éducation](#) en 2004-2005, parallèlement à [l'Unité des nouvelles technologies éducatives](#) et au Diplôme de Pédagogie universitaire ouvert aux enseignants universitaires au Liban.

Le chantier mené par la MPU a été salué par les experts de l'agence ACQUIN dans leur rapport relatif à l'accréditation institutionnelle de l'USJ en 2019, accordée pour 6 ans et sans condition. **L'intérêt du chantier réside dans l'articulation systémique de plusieurs initiatives, menées selon une démarche participative, en vue de consolider une culture pédagogique commune dans une université à l'histoire facultaire.**

Les initiatives de la MPU s'articulent autour des axes suivants :



## 2. DÉMARCHE ADOPTÉE ET DISPOSITIF OPÉRATIONNEL

Le chantier pédagogique, déclenché en 2012-2013, s'inscrit dans un plan d'action, visant à développer des pratiques institutionnelles qui placent l'étudiant au cœur des apprentissages, conformément à la vision pédagogique prônée dans le Processus de Bologne. Une Déléguée du Recteur, relevant de lui, a été nommée à cet effet. Elle a commencé par établir un état des lieux de la culture des *résultats d'appren-*

*tissage* à l'USJ, à travers des entretiens avec chacun des doyens et directeurs. Elle a rédigé un rapport synthétisant les résultats à la lumière de la [vision pédagogique du Processus de Bologne](#) et proposé une stratégie visant à développer cette vision.

**Le chantier visait le développement d'une culture. Une démarche participative et en réseau, mobilisant les parties prenantes et articulant les diverses initiatives, a été adoptée.**

Les mesures ci-dessous ont orienté l'action :

- Impliquer les institutions et les personnes.
- Leur donner une image positive d'elles-mêmes en reliant toute nouvelle proposition à ce qu'elles font déjà.
- Être au plus près des institutions et leur assurer un travail préparatoire et un suivi, à partir de leur réalité.
- Rassurer et soutenir, enseignants et institutions, à travers un coaching de proximité et la production d'outils simples et adaptés.
- Assurer une formation à des personnes ressources au sein des institutions.
- Assurer une légitimité scientifique aux approches préconisées, montrer leur valeur ajoutée et faire ressortir leur articulation.

Un comité pédagogique a été constitué dans chacune des facultés. Leurs coordinateurs ont formé le [Réseau de pédagogie universitaire](#).

Parallèlement, un Réseau de personnes ressources a été constitué, suite à une enquête effectuée auprès des enseignants. Une formation leur a été assurée. Leurs noms et coordonnées figurent par thème, campus et institution, sur une plateforme numérique accessible à la communauté de l'USJ.

### 3. COMPOSANTES DU CHANTIER PÉDAGOGIQUE

#### 1. SÉMINAIRES, ATELIERS DE TRAVAIL ET SUIVI DES INSTITUTIONS

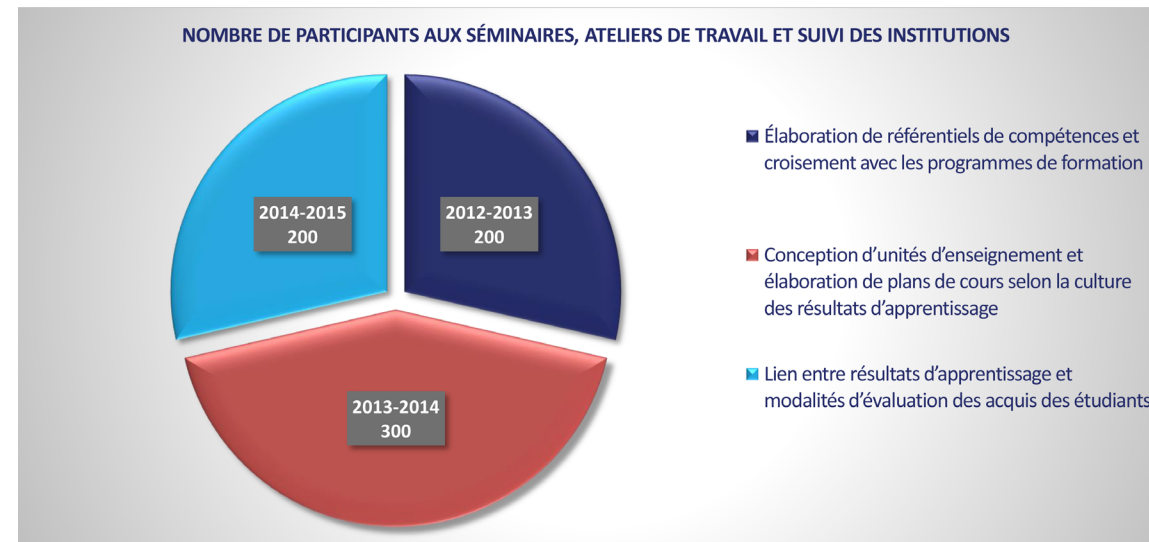
Les premières années de ce chantier, des séminaires, des ateliers de travail et des rencontres de suivi, regroupant des enseignants et des responsables académiques, ont été organisés. Ces initiatives étaient fortement articulées entre elles. Elles visaient à renforcer la culture des *résultats d'apprentissage* à l'USJ, au cœur de la culture qualité (Gaebel & Zhang, 2018).

**Elles ont porté principalement sur l'alignement académique et pédagogique, au cœur de la culture qualité.** L'alignement académique : à travers l'initiation à l'élaboration de référentiels de compétences, le

croisement de ces compétences avec les programmes de formation, la conception d'unités d'enseignement, la rédaction de plans de cours. L'alignement pédagogique : entre *résultats d'apprentissage* attendus d'une unité d'enseignement, le contenu, la scénarisation, reconnue comme déterminante pour l'apprentissage (Galand, 2020), les méthodes d'enseignement et les modalités d'évaluation des acquis des étudiants.

Les participants, regroupés par champs disciplinaires sur chacun des quatre campus de l'université, ont travaillé à l'élaboration de référentiels de compétences des diplômés et revisité leurs plans de cours selon la culture des *résultats d'apprentissage*.

Les coordinateurs des Comités pédagogiques se sont fortement impliqués. Des enseignants des diverses institutions ont présenté leurs plans revisités, suite au coaching qui leur a été assuré. Ils ont ensuite accompagné leurs collègues dans cette démarche. Ces enseignants ont enrichi le vivier des personnes ressources qui grandit à l'USJ au fil des projets. Chemin faisant, les institutions ont entamé une révision de leurs programmes en vue d'en assurer la cohérence avec le profil attendu, puis celle des unités d'enseignement, à travers les plans de cours revisités.



cation d'un enseignement en ligne, méthodes et techniques d'enseignement en ligne, accompagnement des étudiants en ligne, évaluation des acquis des étudiants et rétroaction en ligne.

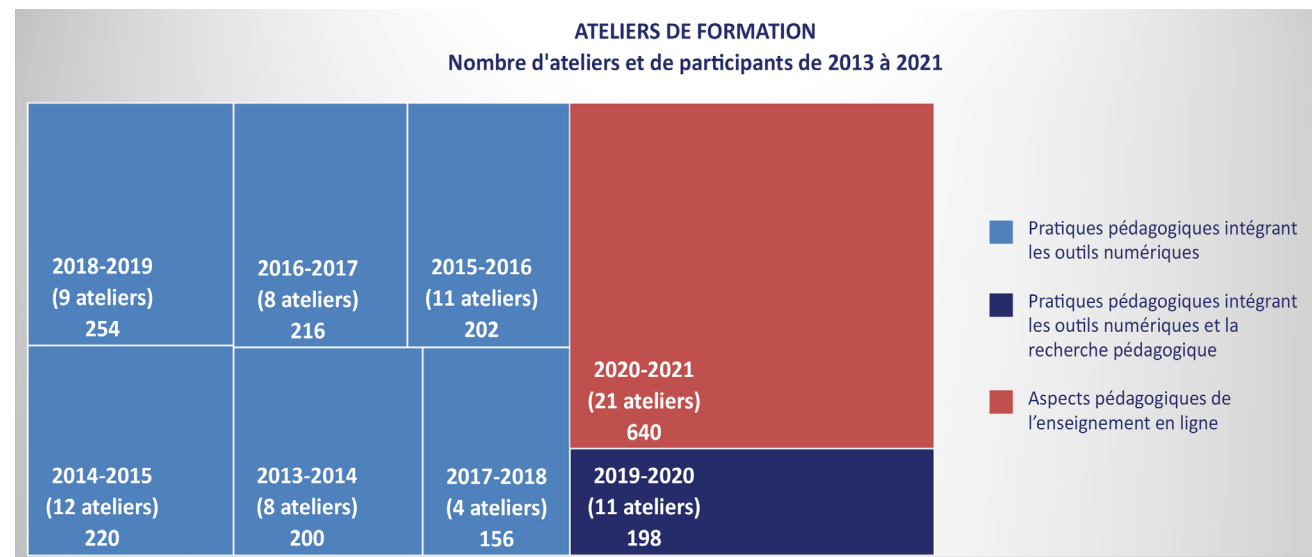
#### 2. ATELIERS DE FORMATION

Les ateliers de formation ont pris des formats différents selon les années. Se déroulant en une ou en deux séances (séance allée et séance retour, suite à l'expérimentation). Ils ont été organisés en présentiel, puis en ligne en 2019-2020 et 2020-2021. En 2020-2021, les ateliers en ligne ont été assurés avec la collaboration de formateurs européens. Ils ont porté sur les aspects pédagogiques de l'enseignement en

La MPU a également sensibilisé les nouveaux enseignants à la culture pédagogique de l'université et aux pratiques d'enseignement qu'elle préconise et les a informés du support qui peut leur être apporté.

Un accompagnement, individuel ou collectif, était proposé à l'issue de chacun des ateliers.

lignes. Ils étaient regroupés autour de plusieurs axes : conception et planifi-



### 3. COACHING

Parallèlement aux ateliers de formation, plusieurs modalités de coaching ont été assurées aux institutions et aux enseignants, en présentiel et en ligne, bénéficiant parfois du soutien financier de l'Agence universitaire de la francophonie. Des personnes ressources de l'USJ ont été sollicitées.

- **Coaching institutionnel** : Accompagnement des institutions dans la conception et l'implémentation de projets académiques et pédagogiques institutionnels, dont l'évaluation de leurs programmes de formation.
- **Coaching individuel en vue d'un développement institutionnel** : Suivi d'un enseignant ou d'un noyau d'enseignants par institution, choisis par les Doyens et Directeurs, souhaitant améliorer leur enseignement et pouvant être des agents multiplicateurs au sein de leur institution.
- **Coaching suite à un atelier de formation pédagogique** : Accompagnement des participants aux ateliers de formation pédagogique pour l'implémentation des pratiques présentées.
- **Aide ponctuelle** : Rencontres avec les institutions ou les enseignants, autour d'une question concrète et ciblée.

### 4. MUTUALISATION DE BONNES PRATIQUES : Carrefours d'échange et Plateforme numérique

Le chantier pédagogique a été lancé par des Ren-

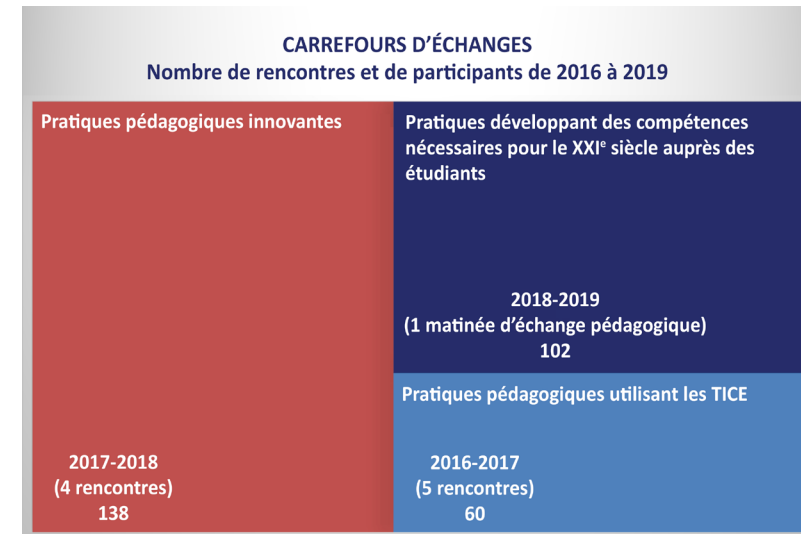
contres et une Exposition itinérante de posters dans les divers campus, en vue de mutualiser les bonnes pratiques de l'USJ centrées sur l'étudiant. Ce choix visait à **désamorcer les résistances en greffant les approches préconisées à celles déjà existantes à l'université.**

Les Carrefours, lancés depuis 2012, ont permis **d'échanger, entre pairs, autour de la mise en œuvre de certaines pratiques, des conditions de leur réussite, des écueils à éviter, de leur valeur ajoutée et de leur impact sur l'apprentissage.**

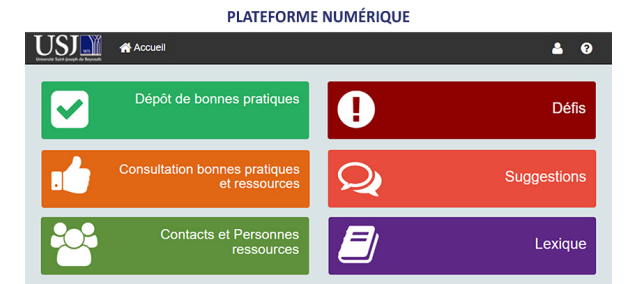
[Une plateforme numérique](#) a été conçue pour capitaliser les bonnes pratiques, assurer leur mutualisation au sein de la communauté USJ et permettre d'entrer en contact avec leurs auteurs. Un Guide a été rédigé, afin d'explicitier les critères retenus pour identifier une bonne pratique et informer sur les modalités de sa présentation et des modalités de dépôt, de consultation et de partage.

Les Carrefours d'échange et la plateforme numérique ont permis de **valoriser les bonnes pratiques existantes, de se nourrir des expériences des pairs, de mettre en écho les pistes trouvées avec les défis rencontrés et de favoriser la constitution de communautés de pratiques.** Ces échanges entre pairs œuvrant dans un même environnement ont été féconds. Ils ont favorisé l'apprentissage et la colla-

boration entre personnes et institutions.



(Les effectifs ne sont pas disponibles pour les Rencontres et Exposition itinérante de posters de 2012-2013, autour de 6 axes de mutualisation des pratiques de la culture des résultats d'apprentissage.)



### Exemples de mise en écho des défis et bonnes pratiques



## 5. PRODUCTION DE RESSOURCES PÉDAGOGIQUES

### ● Rédaction d'un Manuel pédagogique

En 2013-2014 a été publiée la première édition du [Manuel de pédagogie universitaire USJ \(usj.edu.lb/mpu/manuel\)](http://usj.edu.lb/mpu/manuel), conçu et piloté par la Mission de pédagogie universitaire et soutenu par l'Agence universitaire de la francophonie et l'Institut français au Liban. Il a été rédigé par des enseignants de l'USJ. À visée opérationnelle, il propose un outillage méthodologique concret relatif à des pratiques pédagogiques et académiques, dont certaines ont fait l'objet d'ateliers de formation ou de carrefours d'échange. Il comprend des rubriques autour de la planification de la formation et des enseignements, des méthodes et techniques d'enseignement, des dispositifs d'accompagnement et d'évaluation des acquis des étudiants.

Il est édité en deux versions, papier et numérique. Conçu sous forme de classeur, il comporte des fiches, courtes, simples et concrètes. Des séquences, filmées à l'USJ, illustrent certains chapitres de la version numérique.

Ce Manuel, articulé aux ateliers de formation, aux carrefours d'échange et aux bonnes pratiques identifiées, est évolutif. Il est régulièrement révisé. Des chapitres sont modifiés, d'autres sont ajoutés pour

répondre aux besoins de la communauté universitaire. Depuis la première édition, 25 chapitres ont été ajoutés, le glossaire a été enrichi et un chapitre réorganisé. Ce Manuel est largement consulté aux niveaux national et international.



### ● Rédaction de guides

Outre le Manuel de pédagogie universitaire, des guides spécifiques aux chantiers en cours ont été produits :

- *Élaboration d'un Référentiel de compétence* (2012 – 2013)

- *Alignement académique et pédagogique* (2017 – 2018)
- *Évaluation de programmes de formation*. Ce Guide a été conçu en vue de favoriser l'amélioration des programmes (2019 – 2020)

|   |   |  |
|---|---|--|
| ▶ | <b>A - Planification de la formation et des enseignements</b><br>A1 – Élaboration de référentiels de compétences<br>A2 – Croisement des référentiels de compétences avec les programmes de formation<br>A3 – Élaboration du plan d'une unité d'enseignement / Plan de cours<br>Annexes au chapitre A3 : Balises et exemples d'élaboration de plans de cours<br>A4 – Estimation de la charge de travail de l'étudiant  | A - Planification de la formation et des enseignements |
| ▶ | <b>B - Méthodes et Techniques d'enseignement</b><br>B1 – Introduction aux méthodes actives<br>B2 – Cours magistral interactif<br>B3 – Travail en sous-groupes<br>B4 – Situation – problème<br>B5 – Simulation et jeu de rôle<br>B6 – Communication orale<br>B7 – Dispositifs d'apprentissage numériques<br>B8 – Gestion d'un espace d'enseignement sur Moodle<br>B9 – Apprentissage par exploitation de l'erreur<br>B10 – Apprentissage par projet<br>B11 – Étude de cas<br>B12 – Gestion de classe<br>B13 – Facilitation de la recherche documentaire<br>B14 – Classe inversée ou Flipped classroom<br>B15 – Enseigner avec un tableau interactif<br>B16 – How to Conduct Action Research Based on Teaching Practices<br>B17 – Développer la motivation des étudiants en s'inspirant des neurosciences<br>B18 – Comment intégrer les jeux sérieux (serious games) dans son enseignement<br>B19 – Concevoir des séances d'enseignement basées sur l'apprentissage par problèmes | B - Méthodes et Techniques d'enseignement              |
| ▶ | <b>C - Dispositifs d'accompagnement</b><br>C1 – Introduction à l'accompagnement des étudiants<br>C2 – Tutorat<br>C2' – Tutorat d'accueil<br>C3 – Accompagnement des mémoires et des thèses<br>C3' – Posture d'accompagnement de l'étudiant chercheur<br>C4 – Accompagnement des stages<br>C5 – Accompagner les enseignants suite à l'évaluation des enseignements   | C - Dispositifs d'accompagnement                       |
| ▶ | <b>D - Dispositifs d'évaluation des acquis</b><br>D1 – Évaluation des acquis des étudiants<br>D2 – Portfolio<br>D2' – Portfolio numérique ou EPortfolio<br>D3 – Lutte contre le plagiat<br>D4 – Travail personnel intégrateur<br>D5 – Examen clinique objectif structuré - E.C.O.S.<br>D6 – Test de concordance de script - TCS<br>D7 – Évaluation des acquis à partir d'une grille critériée<br>D8 – Élaboration d'une carte conceptuelle<br>D9 – Mise en place des « tâches complexes » et Évaluation des compétences<br>D10 – Techniques de rétroaction pour l'évaluation et la régulation de l'enseignement   | D - Dispositifs d'évaluation des acquis                |

### ● Ressources pédagogiques en ligne

Diverses ressources pédagogiques sont disponibles sur le site de la [Mission de pédagogie universitaire](http://usj.edu.lb) :

- Ressources relatives aux Ateliers et Carrefours d'échange pédagogiques organisés par la MPU

- Ressources relatives à des thématiques d'intérêt pour la communauté de l'USJ

## 6. ACCOMPAGNEMENT SPÉCIFIQUE À L'OUTILLAGE NUMÉRIQUE DURANT LA PANDÉMIE 2019-2020 ET 2020-2021

### ● Cellule de crise (mars 2020)

Une cellule de crise a été créée en mars 2020. Elle a élaboré un plan pour assurer la continuité des enseignements et a défini une vision pour la période à venir.

### ● Support

Outre les ateliers sur les aspects pédagogiques de l'enseignement en ligne et le coaching y relatif, organisés par la Mission de pédagogie universitaire, l'Unité des nouvelles technologies éducatives - UNTE a assuré des formations relatives aux outils de l'enseignement à distance. 300 enseignants y ont participé. Elle a également conçu un guide, des tutoriels vidéo, une plateforme d'échange et mis à des dispositions des références utiles quant à l'usage de ces outils numériques (<http://www.usj.edu.lb/unte>). Parallèlement, L'UNTE a assuré un accompagnement personnalisé et un support technique pour le montage des cours en ligne.

### ● Référents TICE

Un réseau de Référents TICE, coordonné par l'UNTE, a été constitué. Ces enseignants-relais, des différen-

tes institutions, ont assuré un support de proximité. À travers eux, les informations, recommandations ou nouveautés concernant l'enseignement à distance ont pu être diffusées.

#### ● **Coordination (UNTE-STI-Référents TICE)**

La coordination entre plusieurs unités (Service de technologie et Information - STI, Unité des nouvelles technologies éducatives et Référents TICE), a fortement soutenu les enseignants sur le plan technique.

#### ● **Commission de développement des outils logistiques et pédagogiques de l'enseignement en ligne (Juin 2020)**

La Commission de développement des outils logistiques et pédagogiques de l'enseignement en ligne a été constituée en juin 2020, pour capitaliser l'expérience du passage en urgence au travail en ligne et élaborer un plan d'action numérique pour l'avenir.

#### ● **Organisation de groupes de discussions**

18 groupes de discussion, rassemblant 160 enseignants, ont permis de recueillir le feedback des enseignants quant à leur expérience d'enseignement, les pratiques réussies, les défis rencontrés ainsi que leurs recommandations.

#### ● **Guide de soutien pour l'enseignement à distance**

Le feedback des enseignants susmentionné a inspiré la rédaction d'un Guide de soutien pour l'enseignement à distance ([www.usj.edu.lb/enseigne-](http://www.usj.edu.lb/enseigne-)

ment-a-distance). Ce guide, fruit d'un travail collectif coordonné par l'UNTE, propose une démarche de transformation d'un cours traditionnel en format d'enseignement hybride ainsi que des stratégies d'enseignement favorisant l'interaction malgré la distance. Il inclut des exemples et outils.

#### ● **Guide USJ des étudiants pour l'apprentissage à distance**

Un Guide adressé aux étudiants a été également rédigé : Guide USJ des étudiants pour l'apprentissage à distance, adapté par chaque institution de l'université.

#### ● **Grille pour l'autoévaluation de l'adaptation des unités d'enseignement aux exigences de l'enseignement en ligne**

Une grille, rédigée sous forme de check-list (<http://fad.blogs.usj.edu.lb/checklist/>), a permis aux enseignants et aux institutions d'évaluer l'adaptation de leurs enseignements aux exigences de l'enseignement en ligne, en vue de les améliorer.

#### ● **Espace de soutien pour l'enseignement à distance**

Un Espace USJ de soutien pour l'enseignement à distance a été conçu. Les enseignants peuvent y poser leurs questions et leurs réponses aux questions posées. Ce forum est également un cadre pour le partage de pratiques réussies dans l'enseignement à distance.

#### ● **Rencontres d'échanges d'expériences**

Des rencontres informelles ont été organisées per-

mettant l'échange d'expériences et d'astuces. Les solutions opérationnelles présentées viendront nourrir les fiches pratiques du Guide de l'enseignement en ligne susmentionné.

## 4. ÉVALUATION ET IMPACT DES INITIATIVES MENÉES PAR LA MPU

Un chantier pédagogique à l'université est un processus long et progressif. Il déstabilise des représentations et des pratiques fondatrices dans l'enseignement supérieur. Les transformations y sont souvent silencieuses (Jullien, 1997) et difficiles à mesurer.

Toutefois, les initiatives menées par la Mission de pédagogie universitaire, au cours des années, ont mobilisé un grand nombre d'enseignants et de responsables de l'université. Leurs évaluations chiffrées sont positives. Des propositions d'amélioration ont été sollicitées. Il en a été tenu compte dans la mesure des possibilités.

Le recueil de témoignages, entrepris en 2018 et synthétisé ci-dessous, prouve l'impact positif du chantier mené, à divers niveaux :

“ *Un chantier pédagogique à l'université est un processus long et progressif. Il déstabilise des représentations et des pratiques fondatrices dans l'enseignement supérieur* ”

### 1. NIVEAU DES REPRÉSENTATIONS

- Modification de la représentation identitaire de l'enseignant du supérieur largement traditionnelle au Liban (Moghaizel-Nasr, 2019) et ailleurs (Gaebel & Zhang, 2018) et prise de conscience de l'importance des compétences pédagogiques.
- Conscience des liens entre les approches pédagogiques, notamment l'explicitation des *résultats d'apprentissage*, et l'équité évoquée dans la Charte de l'USJ.

### 2. NIVEAU DU FONCTIONNEMENT INSTITUTIONNEL

- Développement de la maturité institutionnelle.
- Renforcement du fonctionnement en organisation apprenante : réflexion collective et communication.
- Renforcement de l'intelligence collective et de la culture de réseau.
- Constitution de communautés de pratiques.
- Collaboration et décloisonnement intra et interdisciplinaire et institutionnel.

- Repérage de personnes ressources pour un soutien de proximité et développement de la culture de coaching par les pairs.
- Renforcement d'une culture institutionnelle commune suite à la réflexion collective sur la finalité des formations, les compétences attendues, la conception de programmes, les méthodes d'enseignement, d'évaluation et autres.

### 3. AMÉLIORATION DES PROGRAMMES

- Renforcement de la pertinence et de la cohérence des programmes.
- Regroupements et restructurations éclairés d'unités d'enseignement suite au repérage des redondances et des lacunes.
- Estimation plus objective du nombre de crédits.
- Clarification des seuils de maîtrise et meilleure progressivité des enseignements entre L/M/D.
- Identification éclairée des prérequis.
- Identification affinée du contenu pertinent pour atteindre un résultat d'apprentissage.
- Développement de la culture de l'approche par compétences.

### 4. MEILLEURE LISIBILITÉ DES DIPLÔMES

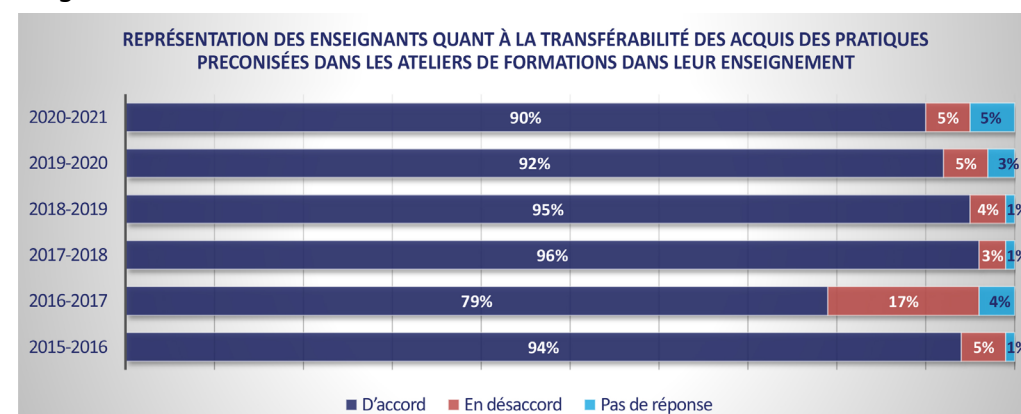
- Valorisation du diplôme et de la profession.
- Lisibilité des diplômes.

- Meilleure identification des débouchés actuels et potentiels et des transformations à venir des métiers.

### 5. AMÉLIORATION DES MÉTHODES D'ENSEIGNEMENT

- Méthodes d'enseignement revisitées en vue d'en assurer la cohérence avec les résultats attendus et en vue de les diversifier et de les rendre plus actives.
- Meilleure identification de la charge de travail de l'étudiant.
- Conception d'un plan de cours comme outil favorisant l'amélioration des méthodes d'enseignement et les modalités d'évaluation des acquis des étudiants.

Une des questions des grilles critériées, soumises aux enseignants suite aux ateliers de formation, porte toujours sur leur représentation de la transférabilité des pratiques préconisées dans leur enseignement.



(Avant 2015, les évaluations étaient à questions ouvertes, donc difficilement chiffrables.)

### 6. AMÉLIORATION DES MODALITÉS D'ÉVALUATION DES ACQUIS DES ÉTUDIANTS

- Plus cohérentes avec les résultats attendus.
- Plus équitables, car fondées sur des critères explicites.
- Plus intégratives, permettant de mesurer la mobilisation de capacités et de savoirs et non la simple restitution de contenu.
- Évaluations plus complexes, contextualisées et intégratrices.

### 7. MOTIVATION DES ÉTUDIANTS / RÉUSSITE / MOBILISATION DE CONNAISSANCES

- Connaissances investies de sens car reliées à une finalité explicite.
- Contenu contextualisé, en lien avec des situations professionnelles.

- Lien théorie-pratique plus évident.

### 8. TRANSPARENCE ET LISIBILITÉ

- Clarification du contrat et responsabilisation de l'étudiant.
- Plus grande attractivité des en-

seignements.

- Meilleure visibilité pour les employeurs potentiels.
- Clarté apportée au Supplément au diplôme.

### 9. APPROCHES D'ACCOMPAGNEMENT

Renforcement de l'efficacité de l'accompagnement grâce à des résultats attendus d'apprentissage mieux identifiés, explicités et communiqués.

### 10. PLUS GRANDE MOTIVATION DES ENSEIGNANTS

## 5. LEÇONS TIRÉES DU PILOTAGE DU CHANTIER PEDAGOGIQUE

#### 1. NIVEAU INSTITUTIONNEL

Le pilotage de ce chantier a démontré l'importance des conditions ci-dessous :

- Une volonté, une vision et une stratégie institutionnelles au plus haut niveau de l'université.
- Une gouvernance favorisant le fonctionnement en organisation apprenante, opérant de manière participative, en réseau, mobilisant les parties prenantes et procédant par évaluations et améliorations continues.



- Une structure de pilotage fortement positionnée assurant formation et soutien.
- Une politique de ressources humaines qui valorise les compétences et les prestations pédagogiques et en tient compte lors du recrutement, du renouvellement de contrat et de la promotion.
- Des plateformes de capitalisation et de mutualisation de bonnes pratiques.
- Une politique de la recherche encourageant celles portant sur les pratiques pédagogiques.

## 2. NIVEAU DES DEMARCHES À ADOPTER

Ce chantier a démontré l'importance des démarches et postures relationnelles. Il est en effet important de :

- Respecter l'histoire, la culture et les seuils de maturité institutionnels.
- Assurer un soutien aux institutions et aux personnes.
- Montrer la valeur ajoutée des pratiques pédagogiques préconisées (Sursock, 2015).
- Adopter une démarche participative et en réseau. Fonctionner en communauté apprenante.
- Avoir une posture d'ami critique et être en empathie avec les personnes et institutions.

- Procéder progressivement, par « petits pas », respecter la « zone proximale de développement », les principes de « continuité » et de « rupture » et procéder par légères déstabilisations et stabilisations successives.

## 3. NIVEAU NATIONAL

La qualité pour tous ne peut advenir que régulée par les autorités publiques. Une recherche de l'Association des universités européennes (Gaebel & Zhang, 2018) confirme l'impact des stratégies nationales sur celles des universités, ainsi que leur « rôle moteur » dans le développement des pratiques pédagogiques. 74% des institutions interrogées reconnaissent cet impact à condition que ces stratégies nationales ne soient ni coercitives ni bureaucratiques. Parmi les mesures incitatives identifiées figurent :

- La reconnaissance juridique des compétences pédagogiques comme constitutives de la profession d'enseignant du supérieur, comme le préconise l'UNESCO et l'OIT (UNESCO, 1997) et le confirme l'Association des universités européennes (European University Association, 2017).
- Les processus d'assurance qualité, car ceux-ci, de par la culture des résultats d'apprentissage qui les sous-tend, placent la formation de l'étudiant au centre des préoccupations. Une

recherche menée auprès de 94 pays (Martin, 2018) nous apprend que 89% des institutions sondées témoignent de l'impact positif d'une telle agence sur la qualité de l'enseignement.

Au Liban, un projet de loi relatif à la création d'une agence d'assurance qualité, attend d'être revu et ratifié. La stratégie nationale date de 2007. La restructuration de la Direction générale de l'Enseignement supérieur est à entreprendre ainsi que la modernisation de la loi régissant l'enseignement supérieur. Plus normative que visionnaire, cette loi qui date 2014, porte essentiellement sur des exigences administratives. Une représentation traditionnelle de l'enseignement se dégage de ses articles, compromettant les approches innovantes :

- La question des enseignants n'y est traitée que sous l'angle administratif.
- La validation des acquis de l'expérience n'y est pas autorisée, ce qui freine les dispositifs de formation continue.
- L'enseignement à distance est réduit à un faible pourcentage d'un programme d'enseignement.

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**PEDAGOGICAL INNOVATION**

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*Inspired by real events:  
detective students in  
Forensic Anthropology  
practices*

**ABSTRACT**

Traditional teaching, exclusively based on lectures, is considered obsolete, and in recent years, it has been registered a tendency towards the introduction of different pedagogical methods, such as simulations.

This article describes a type of mock-up applied to forensic Anthropology, a discipline that requires a solid basis of osteology that is applied in unidentified remains identification.

In order to get students to apply their knowledge dynamically and interactively, it was staged the need of identifying victims, using skeletal material from the University of Granada and identity forms produced by the teacher.

Students were encouraged to identify the remains; they showed great attention to details and finally understood the actual responsibilities that entail the work.

Surely, this tendency could be followed up in the future, and the use of different tools could be introduced to widen the thematic options of the practice activities.

**THE INITIATIVE**

This article describe a simulation experience aimed at bringing students closer, in a dynamic and innovative way, to a new discipline for them: Forensic Anthropology. To do so, they followed the actual procedure performed by forensic anthropologist to identify human remains.

**OBJECTIVES**

GENERAL OBJECTIVES

- Bring students **closer to an innovative and different discipline** within their Study Program.
- Promote **teamwork**
- Apply Physic Anthropology basic knowledge** in a forensic case elaborated by the teacher

- Make students **produce their own forensic form** about sex, age, and particular characteristics of individuals, simulating a coordinated action with the police

- Give **further information about historic cases** from the Criminalistic field.

SPECIFIC OBJECTIVES

- Create a **workspace as similar as possible to reality**
- Strip the anthropologist figure from its typical **cliches portrayed in police TV shows**
- Create **awareness among the students** about the responsibilities that imply a forensic investigation and the amount of work that it entails.

**RESULTS**

- The students worked in groups, with a final presentation of the most remarkable features used to identify the victims
- The identifications were documented in great detail, and they present a critical capacity to confront the forensic case evidence.
- They showed curiosity and attention in the practice by having the presence and guidance of their professor outside class
- Students have described and gathered relevant characteristics of each skeleton and connected them with the data presented on the files, following a scientific approach.
- Students have shown great enthusiasm, they faced their work thoroughly and seriously, providing interesting information and observations.
- They argue their hypothesis and descriptions using an appropriate register and demonstrating their knowledge.

**LESSONS LEARNED**

- PROMOTION OF **TEAMWORK**
- TO GET TO THE END OF THE FORENSIC INVESTIGATION, IT WAS REQUIRED TO **APPLY ALL THE KNOWLEDGE** THEY RECEIVED DURING CLASSES
- IN ORDER TO REPRESENT A **PLAUSIBLE FORENSIC CASE, ONE OF THE FILES COULD NOT BE IDENTIFIED** WITH ANY OF THE INDIVIDUALS
- THE PRACTICES HAVE **RAISED AWARENESS** AMONG THE STUDENTS ABOUT THE EXTREMELY DETAILED AND ATTENTIVE WORK OF A FORENSIC ANTHROPOLOGIST

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*Inspirado en hechos reales:  
alumnos detectives en las prácticas  
de Antropología forense*

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**ABSTRACT**

La docencia tradicional, basada exclusivamente en las clases magistrales, se considera obsoleta y en los últimos años se ha registrado una tendencia hacia la aplicación de otros métodos pedagógicos, como las simulaciones.

En el presente trabajo se describe una forma de simulación aplicada a la Antropología forense, una disciplina que requiere sólidas bases en osteología y cuyos conocimientos se aplican para la identificación de restos hallados sin identidad.

Para lograr que los estudiantes aplicaran de forma dinámica e interactiva las nociones aprendidas durante las clases, se simuló la necesidad de identificar las víctimas de un hecho delictivo, utilizando el material esquelético de la Universidad de Granada y unas fichas sobre la identidad de las víctimas elaboradas por la docente.

Los alumnos fueron motivados a llevar a cabo la tarea, demostrando gran atención para los detalles y llegaron a comprender las verdaderas responsabilidades que conlleva este

trabajo.

Seguramente, se podría seguir esta tendencia para el futuro y se podría favorecer el empleo de herramientas distintas a las empleadas en este caso, para ampliar el horizonte temático de las prácticas en esta disciplina.

## INTRODUCCIÓN

La docencia académica tradicional, basada en la impartición de clases magistrales, se considera superada e incompleta, en algunos casos, para poder llegar a una adecuada formación profesional del estudiante (Galindo, 2019).

La organización estricta y académica tuvo que dejar el paso a formas de aprendizaje más creativas y estimulantes para el desarrollo de las competencias basadas en los conocimientos de una disciplina. En este sentido, surgió la necesidad de implementar una docencia a medida de estudiante, más que a medida del profesor (Mayorga y Madrid, 2010).

Impartir clases no es una labor simple, sino que se trata de mantener viva la llama de la curiosidad y la atención de los alumnos. El docente no es un mero contenedor de informaciones, como podría serlo un libro, por ejemplo, sino que es el intermediario que juega un papel fundamental para el aprendizaje: él domina la disciplina que imparte, pero también tiene que transmitir sus conocimientos de manera sencilla y dinámica, buscando nuevas estrategias para

que dichos conocimientos no sean finalizados exclusivamente a la aprobación del examen, sino que lleven el estudiante a su aplicación en la vida diaria y en su profesión. Es fundamental concienciarlos sobre la relevancia de las competencias adquiridas para formar a profesionales altamente competitivos y cualificados.

Una estrategia similar resulta útil cuando se imparten asignaturas que tendrán repercusiones y responsabilidades prácticas durante la trayectoria profesional o cuando se trata de disciplinas con las que el estudiante se enfrenta por primera vez en su carrera académica. Es importante que el impacto resulte interesante y dinámico, y que los alumnos puedan sentirse protagonistas del proceso de aprendizaje, tocando con la mano los resultados de la aplicación de los conocimientos de una disciplina (Coffey et al., 2011).

Se puede resumir la importancia de estas nuevas metodologías pedagógicas con una máxima del antiguo presidente de Estados Unidos, Benjamin Franklin: «Dime y lo olvido, enséñame y lo recuerdo,

involúcrame y lo aprendo (Seror, 2018)».

En la literatura hay muchas evidencias sobre la importancia de la simulación, una herramienta innovativa, empleada tanto para la investigación como para la docencia (Eyikara y Baykara, 2017; Jee et al., 2020).

Cuando se plantea una simulación para la aplicación de los conocimientos de una asignatura, se propone la creación de un escenario que permita experimentar a las personas (a los alumnos, en ámbito académico) la representación de acontecimientos reales (Qayumi et al., 2014).

A lo largo de los años, el papel de las prácticas y de las simulaciones se ha revelado fundamental para conseguir que los alumnos sean protagonistas del proceso de aprendizaje y desarrollen la capacidad de aplicar los conocimientos adquiridos.

Organizar simulaciones en las facultades de Medicina o de Enfermería acerca los estudiantes a sus futuros pacientes y pone a los alumnos en las condiciones que normalmente se verifican en un centro de salud. Además, hace posible que ellos puedan fa-

miliarizar con las herramientas y las metodologías que tendrán que emplear en su trabajo (Khan et al., 2018; Lateef, 2010).

Distintos estudios han evidenciado la importancia de las simulaciones en el campo médico y en el campo jurídico, indicadas también para el desarrollo de una serie de soft skills fundamentales en el mundo laboral, como la capacidad de tomar decisiones bajo presión y de trabajar en equipo (Eddy et al., 2016; González, 2016).

La aplicación de estas herramientas dinámicas e innovadoras sería ideal también para otras áreas de conocimiento: en el presente trabajo se hace constar que aún no se ha publicado material sobre los beneficios de las simulaciones en un campo

tan práctico como el de la Antropología forense.

Se trata de una disciplina relativamente nueva, bajo constante actualización. Las metodologías que emplea permiten establecer el sexo de un individuo, estimar su edad, reconocer patrones patológicos y lesiones a partir de unos restos esqueléticos, para llegar a la reconstrucción del perfil biológico de un individuo, es decir, su identidad.

“**El docente no es un mero contenedor de informaciones, como podría serlo un libro, por ejemplo, sino que es el intermediario que juega un papel fundamental para el aprendizaje**”

Además, podemos observar patrones lesivos en los huesos que nos permiten aclarar las circunstancias que se verificaron alrededor del

momento de la muerte del individuo y aprender las nociones más relevantes de su vida, rescatando su desaparición del olvido y devolviendo sus restos a sus seres queridos.

Se puede apreciar, entonces, la importancia del papel de la Antropología forense bajo distintas luces: no solamente por su relevancia en ámbito civil (la identificación es necesaria en casos de herencias o de obtención de un seguro de vida) y penal (identificación de una víctima de homicidio o violación de los derechos humanos), sino también por su profunda connotación ética (Evison et al., 2012).

Pues, quienes se dedican a esta profesión tienen un gran respeto por la muerte, pero sobre todo por la vida.

## TIPO DE EXPERIENCIA

Existen distintos juegos para estimular la memoria y acordarse de las nociones explicadas en clase (cartas, mapas conceptuales, etc.), incluso un juego de cartas que permite crear un caso forense, como

“

**la labor de un antropólogo forense no es crear un caso, sino resolverlo: es decir, identificar los restos esqueléticos humanos hallados en base a protocolos estrictamente científicos.**

en el famoso *Cluedo*: se pescan de la baraja imágenes de huesos, lugares, armas y distintos tipos de lesiones (North Carolina School of Science and Mathematics) y se correlacionan estos detalles para crear una escena del crimen.

No obstante, la labor de un antropólogo forense no es crear un caso, sino resolverlo: es decir, identificar los restos esqueléticos humanos hallados en base a protocolos estrictamente científicos.

Para no limitar las prácticas a un mero ejercicio de descripción del material óseo, se ha simulado la investigación de un caso forense inspirado a acontecimientos reales, que tuvieron lugar en 1978 en Jonestown (Guyana).

De esta manera, la docente ha coordinado la actividad de los alumnos, llamados a ser *coroners* durante las prácticas, para comprender el trabajo que tienen que desarrollar los profesionales para identificar las víctimas de un desastre masivo, un caso tan extenso que permite tocar casi todas las herramientas empleadas en Antropología forense y hace necesario el trabajo en equipo para obtener resultados adecuados.

Además, se han instruido los alumnos sobre una de las masacres más sangrientas de la historia ligada a una secta.

El contexto y los antecedentes se han explicado durante un breve seminario, recopilando todos los datos disponibles y necesarios para que los alumnos pudiesen seguir con su investigación forense y para que se sintieran mayormente involucrados con la historia de las víctimas que iban a identificar a lo largo de las sesiones prácticas.

En 1978 en una localidad llamada Jonestown, del nombre de su fundador, Jim Jones, se encuentran 909 cuerpos sin vida, víctimas del suicidio masivo que tuvo lugar el 18 de noviembre. Las víctimas eran los adeptos de una secta pseudo-religiosa, llamada el “Templo del Pueblo” (Wiles, 2018).

El líder de la secta era originario del estado de Indiana y años atrás había empezado a trabajar como ministro cristiano, ganando el favor de la gente y recaudando dinero para fundar su propia iglesia: en realidad, se trataba de su versión de una comuna marxista.

En 1977, debido a que su reputación fue vilipendiada por parte de algunos de los ex miembros de la secta, decidió mover su pueblo a un asentamiento en Guyana. Al principio, parecía un lugar tranquilo y

ameno, pero cuando algunos de los miembros quisieron volver a su casa y Jones se lo impidió, los familiares y los amigos de sus seguidores empezaron a sospechar de las intenciones del líder religioso y a temer por la salud de sus seres queridos.

Consciente de la llegada de las fuerzas estadounidenses para liberar a sus seguidores, Jones ordenó un suicidio colectivo, que él definió revolucionario, indispensable para evitar caer en las manos de los enemigos, y obligó a toda la población de Jonestown a beber cianuro, un veneno que en pocos minutos acabó con centenares de vidas (Beltran, 2013; Wiles, 2018).

## CONTEXTO DE LAS PRÁCTICAS

Las prácticas objeto de la presentación realizada en este trabajo forman parte de la guía docente de la asignatura de Antropología forense (3 créditos ECTS). Dicha asignatura puede ser escogida en su plan de estudio por parte de los estudiantes matriculados en el doble grado de Psicología+Criminología y por los de Criminología+Trabajo social, siendo ambas facultades de la Universidad Pontificia Comillas (Madrid).

Debido al estallar de la pandemia causada por el nuevo Coronavirus y siguiendo las recomendaciones de las autoridades sanitarias, las prácticas tuvieron

que realizarse de forma totalmente virtual.

El ambiente virtual de elección para desarrollar el trabajo de investigación fue la plataforma *Moodle* de la misma Universidad, siendo la modalidad más segura para organizar reuniones interactivas y presentaciones, sin comprometer la protección de los datos tanto de los alumnos como los de los docentes.

## OBJETIVOS Y METODOLOGÍAS

En el presente trabajo se proporciona un posible cambio de tendencia hacia una forma más dinámica para involucrar al estudiante en el estudio y aprendizaje de la disciplina y para dar una finalidad a su investigación y para valorar la labor de distintas figuras profesionales en la resolución de un problema criminológico.

Además, con este método se propone acercar el alumno a una realidad idealizada en muchas películas y series policíacas, sacando a luz las verdaderas responsabilidades y competencias que requiere el estudio del material forense.

En particular, los objetivos generales que se querían alcanzar gracias a este tipo de simulación han sido los siguientes:

- Acercar de forma amena los alumnos a una disciplina muy novedosa y distinta dentro de su plan de estudios;
- Fomentar el trabajo en equipo para conseguir un resultado;
- Aplicar los conocimientos básicos en Antropología física (determinación de sexo, edad, reconocimiento de lesiones, etc.) a un caso forense elaborado por el docente;
- Llevar los estudiantes a realizar su propio informe forense sobre sexo, edad, rasgos particulares de los individuos, simulando una acción de cooperación con las fuerzas de policía;
- Aportar conocimientos ulteriores sobre casos históricos en el campo de la Criminalística.

Entre los objetivos particulares, el siguiente enfoque procuraba:

- Generar un ambiente de trabajo lo más parecido posible parecido a la realidad;
- Despojar la figura del antropólogo de todos los clichés típico de las series policíacas;
- Concienciar los alumnos sobre las responsabilidades que conlleva una investigación forense y sobre la carga de trabajo en términos de tiempo, herramientas y finalidad.

Para alcanzar estos objetivos y conseguir que las prácticas respetaran la verosimilitud típica de un caso forense, se separaron los alumnos en grupos de trabajo (cada grupo estaba formado por 5 alumnos, por un total de 30 estudiantes).

Luego, se repartieron entre los grupos seis carpetas que llevaban unas imágenes de esqueletos procedentes de la colección actual del Laboratorio de Antropología de la Universidad de Granada, concedidas por generosidad del Profesor Miguel Botella. Se trata de individuos cuya identidad ha sido sustituida por un número y cuyos datos personales, como nombre y apellido, no son accesibles a terceros, así que se asegura la protección de datos sensibles desde el punto de vista ético y legal.

Los individuos empleados han sido 30, seleccionados y estudiados previamente por la docente, que ha elaborado el perfil biológico de cada uno, para tener

una propia carpeta con las informaciones relevantes de cada esqueleto.

Sucesivamente, se han elaborado 30 fichas que llevaban la identidad ficticia de los individuos: las fotos presentes de los individuos se descargaron de una página web que proporciona imágenes sin derechos de autor. De todas formas, se han cambiado las imágenes originales gracias al programa *Pro-Create*® para que el parecido con la figura original fuese mínimo.

Cada ficha llevaba una descripción por puntos de los aspectos más relevantes de los individuos: sexo, edad, nacionalidad, trabajo e intervenciones o patologías padecidas en vida.

Además, las características descritas en dichos documentos eran coherentes con las informaciones extrapoladas a través de los huesos (figura1).

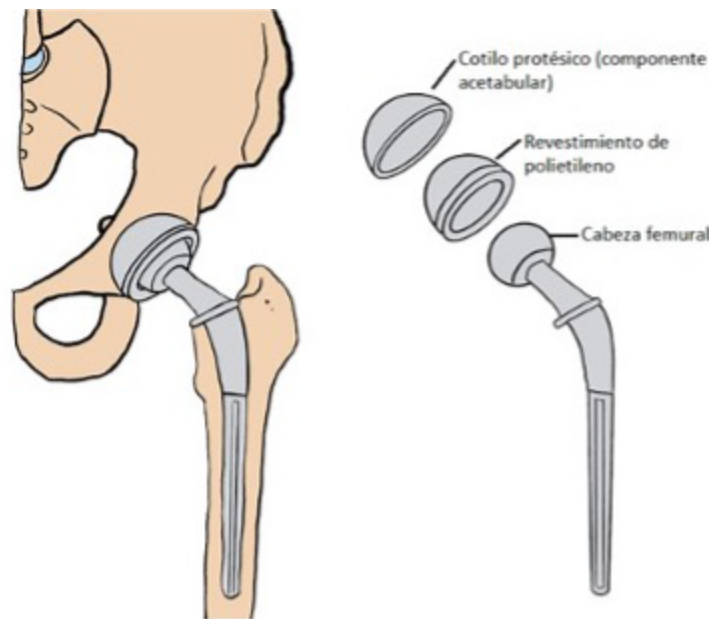
**Figura 1. Dos ejemplos de las fichas elaboradas para identificar los restos esqueléticos. Todos los datos, incluso los nombres, son ficticios y no están inspirados en ninguna persona real.**



Por ejemplo, algunos de los esqueletos presentaban un patrón muscular muy marcado: esto es índice de una actividad intensa y prolongada llevada a cabo por el individuo durante su vida (Karakostis et al., 2019). En estos casos, se ha imaginado que el individuo realizara labores pesadas, como puede ser el trabajo de obrero o fontanero.

Se hizo referencia a cirugías u otras intervenciones que el individuo presentara, como la presencia de prótesis y obturaciones (figura 2).

**Figura 2. Un ejemplo de prótesis que se puede encontrar en unos restos esqueléticos: en este caso, se representa la estructura de un reemplazamiento completo de cadera.**



## RESULTADOS OBTENIDOS

Terminadas las sesiones de prácticas, los estudian-

tes han realizado un trabajo de grupo, con exposición final y presentación de los rasgos más llamativos e identificativos utilizados para restituir una identidad a las víctimas.

Además, han contado con la presencia y la guía de la docente en todo momento, también fuera del horario dedicado a las prácticas, demostrando curiosidad y atención hacia su trabajo.

Los alumnos han participado con gran entusiasmo y se han enfrentado a la tarea asignada con minuciosidad y seriedad, aportando datos y observaciones muy interesantes.

Las identificaciones llevadas a cabo han sido documentadas con mucho detalle y capacidad crítica de enfrentarse con las evidencias de un caso forense.

Los alumnos han descrito y recopilado las características relevantes de cada esqueleto y las han puesto en relación con los datos presentes en las fichas, siguiendo un enfoque estrictamente científico.

En la sesión de preguntas y comentarios han argumentado sus hipótesis y descripciones con un registro apropiado a la materia y empleando todos los conocimientos aprendidos durante las clases

frontales. Destaca mencionar unos casos en los que el nivel de detalle de la exposición sobrepasó las nociones recibidas por parte de la docente.

La preparación y la atención hacia el proyecto de los grupos fueron premiadas con una nota sobresaliente.

## CLASE APRENDIDA

Las simulaciones son una herramienta que se ha revelado fundamental para el aprendizaje de disciplinas donde el profesional tiene una relación cercana con su paciente, como en el caso de la medicina o de la enfermería. (Eddy et al., 2016; Guerrero-Martínez et al., 2020).

También en el caso de la Antropología forense se hace necesario este tipo de enfoque no solamente para alcanzar un conocimiento adecuado de la osteología, sino también para concienciar los alumnos que quieran dedicarse a esta disciplina sobre sus verdaderas tareas y responsabilidades.

Las series televisivas, las películas y los libros a tema policíaco a lo largo de los años han generado una imagen distorsionada de lo que realmente pasa en una investigación forense, llevando a una idealización de la figura del antropólogo y de sus metodologías para llegar a la solución del caso.

En realidad, aunque no se trate de pacientes vivos, los antropólogos manejamos material que necesita nuestro cuidado: los huesos de la víctima de algún crimen que nos revelan sus últimas palabras y las experiencias que señaron su vida, dejando unas huellas indelebles en su esqueleto.

Es fundamental, por ejemplo, que un antropólogo sepa discriminar un hueso humano de uno no humano, para que acontecimientos como el caso Bretón no vuelvan a ocurrir (Marchena, 2018).

Tras realizar estas prácticas, se ha alcanzado uno de los objetivos definidos a principio de curso: acercar los estudiantes de manera amena, dinámica e interactiva a una disciplina totalmente nueva para ellos.

Durante la elaboración del perfil biológico de los individuos, ha sido ampliamente fomentado el trabajo en equipo, ya que era considerable la cantidad de datos que cada grupo tenía que gestionar.

De hecho, para llegar al resultado final de la investigación forense, fue necesario aplicar todos los conocimientos impartidos a los estudiantes durante las clases: de esta forma, todas las nociones acerca de la determinación del sexo, de la estimación de la edad, del reconocimiento de las lesiones más comunes pudieron aplicarse conforme iban desarrollándose las sesiones prácticas.

Para respetar la verosimilitud de un caso forense y para que los estudiantes se quedaran con una lección muy importante, la docente estableció que una de las fichas no tuviese correspondencia con ninguno de los individuos. De esta forma, uno de los esqueletos se quedó sin identidad: es importante evidenciar que en las ciencias forenses no se puede llegar a la identificación de una persona fallecida por exclusión.

Es necesario que siempre haya unas bases científicas que nos permitan atribuir una identidad a unos restos: si unos detalles no coinciden o si no tenemos evidencias suficientes, la identificación se define inconcluyente.

Se considera que las prácticas hayan concienciado los alumnos sobre la labor extremadamente detallada y atenta de un antropólogo forense, llamado a identificar unos restos esqueléticos.

También tiene que seleccionar las herramientas que considere adecuadas para realizar el estudio del material esquelético y de todas las evidencias disponibles, teniendo en cuenta el factor temporal y los recursos económicos de los que dispone el equipo de in-

vestigación.

De hecho, han podido pedir análisis e investigaciones adicionales cuando lo hubiesen considerado oportuno, demostrando gran atención hacia la disciplina y la simulación.

Además, se han dado cuenta de la gran responsabilidad que conlleva identificar unos restos para que se alivien las heridas de familiares y amigos de la víctima, acabando con su angustia y pudiendo dejar detrás de sí el limbo de la duda.

## POSIBILIDADES DE MEJORA

Siendo el primer año académico que se emplea el enfoque descrito en el presente trabajo, sería oportuno **monitorizar el nivel de aprendizaje y de seguimiento de los alumnos en cada curso, para poder responder a sus exigencias y para conocer sus gustos.**

Los alumnos del curso 2019/2020, en la reunión de fin de curso y al fin de cada sesión práctica, han apreciado la iniciativa y han exteriorizado su satisfacción, viéndose involucrados en el rol de antropólogos y apli-

“

*Es necesario que siempre haya unas bases científicas que nos permitan atribuir una identidad a unos restos: si unos detalles no coinciden o si no tenemos evidencias suficientes, la identificación se define inconcluyente.*

cando los conocimientos aprendidos en las clases frontales.

Desde el punto de vista de las **herramientas y de la disciplina** en sí, tras la experimentación realizada durante este curso, **se podrían elaborar casos distintos para visualizar la aplicación de herramientas de investigación más complicadas, pero muy utilizadas, como el ADN.**

Se considera oportuno seguir el ejemplo del caso descrito en este texto, ya que la inspiración en hechos reales llama la atención y constituye una oportunidad adicional para conocer la historia del crimen.

**Sería conveniente implementar el material utilizado, añadiendo otras herramientas extendidamente empleadas en las investigaciones modernas, como los softwares 3D y las pruebas moleculares.** Es importante que quienes quieran trabajar en el campo de la Justicia sepan cómo se obtienen estas trazas, cómo se tratan y cómo se obtienen los resultados, para evidenciar eventuales fraudes y manipulaciones que alteren la integridad de las pruebas.

Los conocimientos básicos de las distintas metodologías forenses aclararían muchos aspectos, por ejemplo, en el empleo del ADN como evidencia: no se trata de una prueba que liga indisolublemente un

individuo a un crimen, sino que según un porcentaje obtenido de los programas de análisis genéticos colocan a una persona en la escena del crimen. Otras evidencias nos ayudan para comprender el papel que tuvo el sospechoso en el contexto del delito.

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## *Collaborative Culture: The winner synergies between Career Services and Academia*

### *The successful case of two elective Career Services courses*

#### ABSTRACT

Through the Best Practice presented in this article, we would like to share how genuine collaborative culture in higher education, promoted by wills, objectives, and structure, made possible the design and implementation of two elective courses co-created between the Career Services department and the academic team, with a very positive outcome. The end result for the students was an improvement in their managerial skills, a better preparation for selection processes, and a greater engagement towards the institution.

#### THE INITIATIVE

In order to **face the challenges of employability and professional development**, the collaboration between institutions to achieve synergies is a determining factor. In this article, the authors present the launch of **two elective courses focused on employability**, co-created, designed and delivered between the Career Services team and the academic team under a cooperative institutional working approach.

#### OBJECTIVES

- 1 Improvement and deepening the development of competencies and skills
- 2 Increase the engagement of students towards Career Services and the ESADE University as a whole

#### RESULTS

- ✔ One of the positive results was the number of participants enrolled, given that the choice of electives by students is a free process of choosing from among more than 200 subjects. In both courses the **maximum numerus clausus of participations was achieved**.
- ✔ For all the courses taught in the BBA studies, the **feedback results obtained topped all the other elective courses with no exception**.

#### TEACHING METHODOLOGY



It facilitates a **dynamic, integrative and active learning**.



Combination of **face-to-face and online classes**



Active reflection as part of the learning process is **key to the integration of knowledge**.



**National and international professionals** were invited to share their expertise.

#### OPPORTUNITIES FOR IMPROVEMENT

The **possibility of offering the courses in a cross-disciplinary format**, integrating students from **different degree programmes** (Bachelor of Laws, Bachelor's Degree in Global Governance, Economic & Legal Order...) or even from **second and third years** in the same elective, should be considered.

More **specific pre-training** should be sought and requested from some speakers in the future, in order to obtain a **more practical and interactive scenario with the students when in-class**, instead of a, sometimes, static, old-fashioned and descriptive approach.

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# *Collaborative Culture: The winner synergies between Career Services and Academia*

DR. ROQUE ADRADA, DR. GERARD COSTA AND BRUNO REIS  
ESADE, SPAIN

#### ABSTRACT

Through the Best Practice presented in this article, we would like to share how genuine collaborative culture in higher education, promoted by wills, objectives, and structure, made possible the design and implementation of two elective courses co-created between the Career Services department and the academic team, with a very positive outcome. The end result for the students was an improvement in their managerial skills, a better preparation for selection processes, and a greater engagement towards the institution.

## INTRODUCTION

In the current economic scenario characterised by rapid change, in a V.U.C.A. -Volatility, Uncertainty, Complexity, and Ambiguity- environment, Higher Education Institutions have increasingly been called to prepare students for the “new” world of work, while being pressured to develop their graduates’ employability (Suleman, F., 2018). This challenge has intensified since the expansion of Higher Education and the Bologna Process (2004), that reframed the policy debate and placed the smooth transition from school-to-work, and the employability of graduates at the forefront of education policies (Schomburg and Teichler, 2011).

In order to face the challenges of employability and professional development, the collaboration between institutions to achieve synergies is a determining factor and it is not in vain that it is explicitly indicated in the strategic framework 1 of the International Association of Jesuit Universities:

“**Establish a formal network - the International Association of Jesuit Universities (IAJU) mission is to link institutions, and serve as the vehicle for 1) advancing the implementation of a strategic agenda and 2) enhance communication from and to the Society of Jesus, and Jesuit institutions.**”

However, and without prejudice that setting an external and inter-university collaboration network is a relevant factor for the development and competitiveness of organisations, building interdepartmental collaboration between stakeholders of an educational institution is, probably, an even more relevant practice towards the goal of fostering innovation while achieving synergies, when launching new multi-disciplinary projects.

In this article we will present the launch of two elective courses focused on employability, co-created, designed and delivered between the Career Services team and the academic team under a cooperative institutional working approach.

In addition to the willingness of individuals and professionals to materialise interdepartmental cooperation, in the specific case of ESADE Business and Law School (ESADE) the gradual transformation of the Career Services structure towards an integrated approach in the academic syllabus has been key to the success of the project. Therefore, before going in-depth into the development of the elective courses, it is relevant to explain the context within which the process has taken place.

## CONTEXT

As previously mentioned, the achievement and suc-

cess of the specific project of the co-creation of two elective courses cannot be explained and would not have been possible in terms of design, implementation, and follow-up without a structure and culture focused on genuine interdepartmental collaboration. Therefore, we will now analyse some of the key elements of the collaborative culture in higher education and the transformation of the structure of ESADE Career Services.

## COLLABORATIVE CULTURE IN NEW CURRICULUM DEVELOPMENT

When looking at curricular revision and development in the higher education environment, one must consider the influences that affect change as well as barriers that might inhibit it (Oliver, S. L., & Hyun, E. 2011). Three major influences on curricular change include: external influences (alumni, market, society...), organisational influences (structure), and internal influences (professional staff, leadership team and Faculty) (Stark & Lattuca, 1997, p. 331). These influences are necessary to understand the collaborative effort in a new curriculum review process. In addition to the key influences, we should note two main challenges within the Higher Education Institutions: structural “relating to the characteristics of the organisational framework” and cultural that “determine how people in the

organisation act” (Seymour, 1988, p. 5). Culture plays a major role in new curriculum development and impacts the educational change process at the institutional, departmental, and faculty levels (Oliver, S. L., & Hyun, E. 2011).

ESADE’s collaborative culture, here understood as an intangible dynamic of interdepartmental cooperation, together with a shared mission and vision, was one of the key elements in the development of the two new Elective Career Services courses.

## EVOLUTION OF CAREER SERVICES DEPARTMENTS

Since their creation, Career Services departments have adapted to various models and structures according to the economic framework, the demands of the labour market, and the needs of each university (Cruzvergara & Dey, 2014). Career Services departments are currently considered key departments within the strategy and competitiveness for educational institutions, given the increasing relevance of employability in the Higher Education sector (McMurray, S., Dutton, M., McQuaid, R., & Richard, A., 2016).



Among the main current trends, we can highlight the following:

### Elevating Career Services' role in the Education value-chain

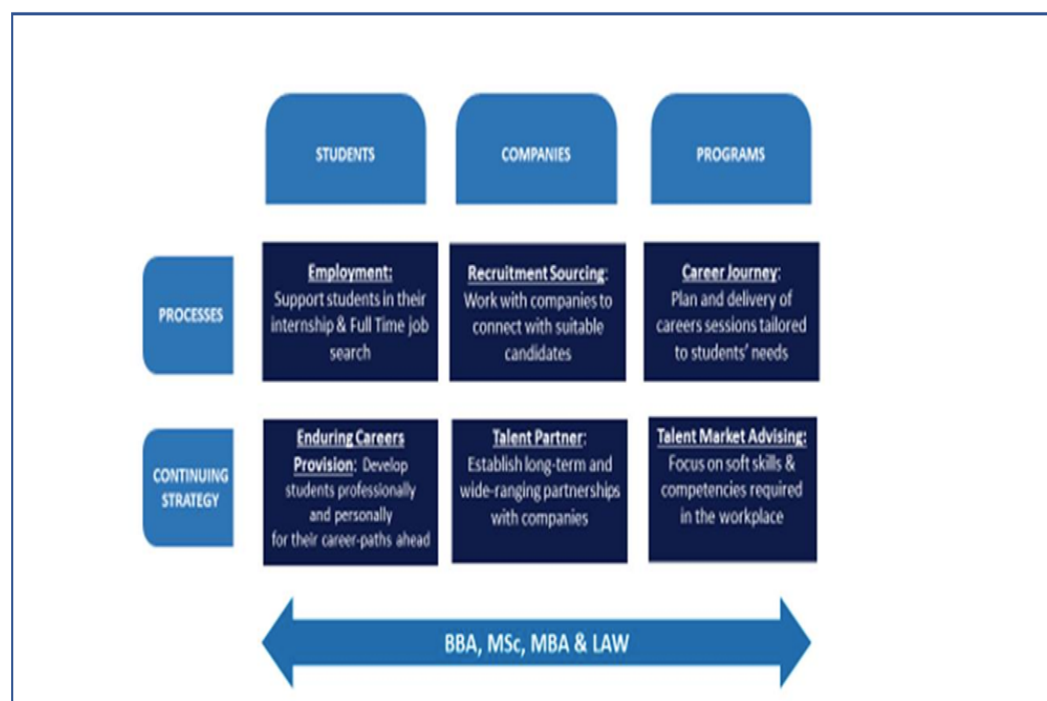
Senior leadership positions within Higher Education have recognised the key importance of Career Services teams with respect to recruitment, talent recruitment, retention and, ultimately, institutional revenue (Ceperley, 2013; Education Advisory Board, 2012). As a result, the level of strategic influence of Career Services departments within the organisation as well as the interlocution with different levels of the organisation is undergoing a process of transformation.

### Personalisation and specialisation

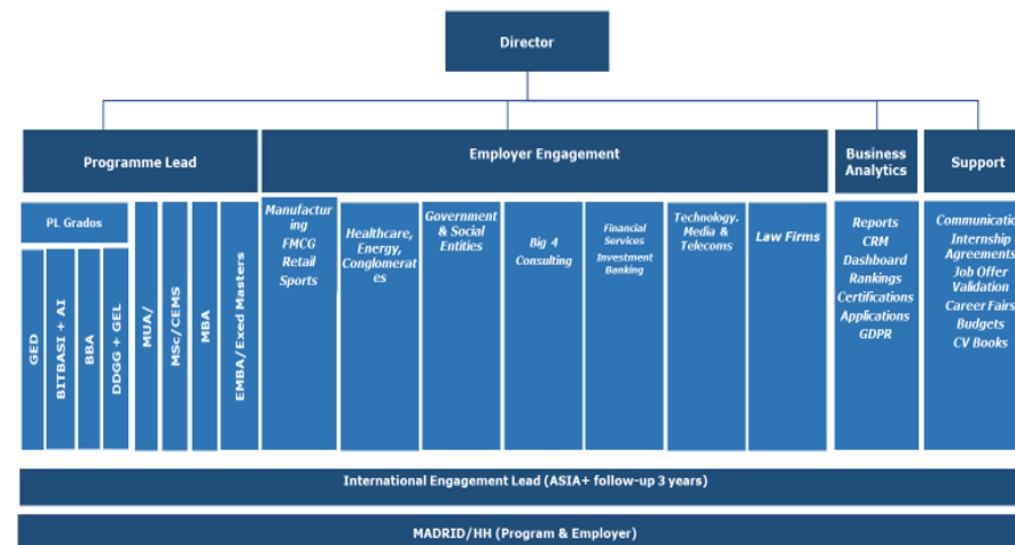
In an interconnected world with easily accessible and open information, Career Services teams had to reformulate the vision concerning the value proposal, leading to an approach of -personalisation- and -specialisation- both for students and for the institutions' stakeholders as a whole (Dey, F., & Cruzvergara, C. Y., 2014).

### THE CASE OF THE ESADE CAREER SERVICES DEPARTMENT

Without seeking to provide an exhaustive explanation, we should highlight the process of transformation of the structure and culture of the ESADE Career Services, which nowadays allows for a greater level of dialogue with internal customers, and a higher level of personalisation. ESADE Careers went from a department that worked in an individual format to a department with a transversal vision and goals together with the its most important stakeholders: Students, Companies and Academic Programs.



In terms of structure, the consideration of two separate units is relevant:



### Employer Engagement – The Sector Expert Figure

Considering that each industry/sector has its own particularities regarding the selection process, candidate profile, and necessary skills, and taking into consideration the need to offer a personalised and specialised service, the corporate relations team is subdivided into blocks, each of them corresponding to a market sector, thus allowing for the ultra-specialisation and, consequently, for better advising, follow-up, and service.

### Student Engagement – The Programme Lead Figure

In response to the need for integration with the Academic programmes and personalisation of the service, positions known as “Career Programme Lead” were created, and understood as “Career Services Business Partners” by the remaining stakehol-

ders, with the main purpose of developing a link between the Careers Services team's actions and events, students' needs, and the academic syllabus' requisites.

This position is responsible for the transversal planning and design of the yearly training schedule for each programme (see Annex, Career Journey BBA) by gathering the transversal needs of its internal clients and students, and also for the coordination and following-up of the evolution of placement in both internships and full-time employment targets.

### CAREER SERVICES ELECTIVE COURSES CONSULTING ACADEMY & EMPLOYABILITY SKILLS

After analysing the development context characterised by a genuine cooperation and a Career Services structure with a strong interlocution with the academic syllabus, we will analyse the casuistry of the launching of the Career Services Elective Courses by analysing the main milestones from a general and holistic point of view.

## DETECTION OF NEEDS AND CAREER PREFERENCES

The capacity of a Business School regarding its employability levels is key both for the competitiveness of the institution and to guarantee the level of satisfaction and subsequent engagement of students after their time at the institution. In this framework, with 41% of students interested in working in “Consulting” and a 48% in “Industry”, and taking as a reference the BBA placement report of 2019, where 46% and 41% were respectively placed in those sectors, it became clear that it was necessary to develop specific training aiming at both the professional output in the Consulting and Industrial sectors, since these two together represented circa 90% of preferences and placement.

Given the integration of Career Services with internal stakeholders (explained above), and the mentioned flourishing of an interdepartmental “cooperative spirit” (in particular with Academic Programme), two specific trainings were idealised, and planned to be launched in the form of “elective courses”:

- Consulting Academy: Breaking into Strategy and Management Consulting
  - Month of January
  - Second-Year
  - Bachelor’s Degree in Business Administration
  - 3 ECTS

- Employability Skills: How to Develop Your Skills to Advance Your Career in the Industry Sector

- Month of January
- Third-Year
- Bachelor’s Degree in Business Administration
- 3 ECTS

## OBJECTIVES

With the proposal to launch two elective courses with a clear “Career Services DNA”, two shared objectives were established: On one hand, improve and deepen the development of competencies and skills both for the development of Career Services in the Consulting sector (in the case of the “Consulting Academy” course) and in the Industry sector (in the case of the “Employability Skills” course) and, on the other hand, to increase the engagement of students towards Career Services and the ESADE University as a whole.

## DESIGN MODEL

After detecting the needs and defining the objectives, the design of the content, duration and format of the course were developed by two multidisciplinary working groups constituted of professional staff (Graham, C., 2012) from Career Services and Academia. Sector Experts with field experience, to-

gether with collaborating professors under the direct coordination and advice from the Vice-Dean of Undergraduate Studies were capable of drawing in just a few weeks the perfect content to address the needs for reinforced employability in the Consulting and Industry sectors. With this -cooperative- model it was possible to bring together the expertise of each of the groups represented:

- Career Services: Inside view to go-o-market demands and specific characteristics of the selection processes, in each sector.
- Collaborating Professors: Proven results in teaching mixed with real-life experience in the professional market.
- Vice-Dean: Overview of the academic syllabus, experience in course design, and focus on results and academic quality.

## TEACHING METHODOLOGY

### Learning by Doing

Several studies show that, when a student is actively involved during the learning process, namely through interactive sessions that foster them to participate in-class (e.g. discussing pre-class readings), thus putting in practice in class what they learned in previous sessions while applying concepts and ideas to practical exercises, the result of both “learning” and “engagement” is higher than usual (Be-

nek-Rivera & Matthews, 2004; Picciano, 2002).

On this basis, the importance of applying the *Learning by Doing* model, facilitating a dynamic, integrative, and active learning, was emphasised in the design of the course.

### Individual Learning Journal

Linked to the Learning by Doing approach, since the publication of *The Reflective Practitioner: How professionals think in action* (Schön, 1983), the introduction of active reflection as part of the learning process is key to the integration of knowledge and review of areas for improvement and strengths (Chris Park, 2003).

For this reason, after each session, reflection exercises were carried out on one’s own in-class learning experience with individual self-knowledge tasks, finally compiled in a Learning Journal that pretended an answer to the following questions:

1. What have you learned today?
2. What has caught your attention the most?
3. Where would you suggest an improvement area?
4. In which dimension you envisage to have your greatest potential?

## Hybrid format

The influence of SARS-Cov-2, commonly known as Covid-19, had a direct implication on the teaching format. Originally designed to be 100% face-to-face, both courses were finally developed in a hybrid format, meaning that, from moment zero they were both entirely developed in face-to-face and online format.

This allowed international speakers with mobility restrictions to conduct sessions in a virtual format, while also coping with student's mobility restrictions (enforced by both travelling or disease constraints), while facilitating the possibility for students to come on-campus to be present during the sessions, if they preferred.

## External Speakers

In addition to the participation of academic professors and professional staff, national and international professionals were invited to share their experiences, advice, and knowledge during class sessions. Some of them were professionals from well know companies in the Industry and Consulting sector, coming from companies such as: UBER, Delta Partners, EFMD (European Foundation for Management Development), McKinsey & Company, Danone, BCG (Boston Consulting Group), GE, Oliver Wyman, Hilti, or Bain & Company.

The presence of external speakers made the closing of the learning process possible, thus allowing students to have a real and pragmatic vision of the working world applied to the contents that are taught and practiced in class.

## POSITIVE RESULTS OBTAINED

There are two immediate results that we can highlight as very positive: On the one hand, the number of participants enrolled, given that the choice of electives by students is a free process of choosing from among more than 200 subjects. In both courses the maximum *numerus clausus* of participations was achieved (65 students for Consulting and 45 for Industry out of 350+ total BBA students); On the other hand, for all the courses taught in the BBA studies, the feedback results obtained topped all the other elective courses with no exception.

Results were obtained via a survey sent out immediately after the last class, to find out the students' opinion on the subjects taught.

This is considered to be a relevant quantitative measurement of the quality assessment of the students with regards to course design and content, and also the to the quality of the teachers'/speakers' teaching skills.

As a result:

- Consulting Academy: Obtained a score of 6,5 out of 7
- Employability Skills: Obtained a score of 6,7 out of 7

For a better overview, it is worth noting that of the 200 courses offered during the month of January, the two courses in discussion were rated as top 10% by the students. This means that the subject, methodology, speakers, and timing were welcomed and appraised by students.

## OPPORTUNITIES FOR IMPROVEMENT

At the end of the project for the development of the two Career Services elective courses, the following opportunities for improvement were identified and highlighted:

- Cross-disciplinary electives: Both courses were developed entirely for the group of Bachelor's Degree in Business Administration second year students. However, the possibility of offering them in a cross-disciplinary format, integrating students from different degree programmes (Bachelor of Laws, Bachelor's Degree in Global Governance, Economic & Legal Order..) or even from second and third years in the same elective, should be considered;
- The participation of internationally renowned speakers has been very positive but taking

into consideration that the feedback from students has been very positive, more specific pre-training should be sought and requested from some speakers in the future, in order to obtain a more practical and interactive scenario with the students when in-class, instead of a, sometimes, static, old-fashioned and descriptive approach.

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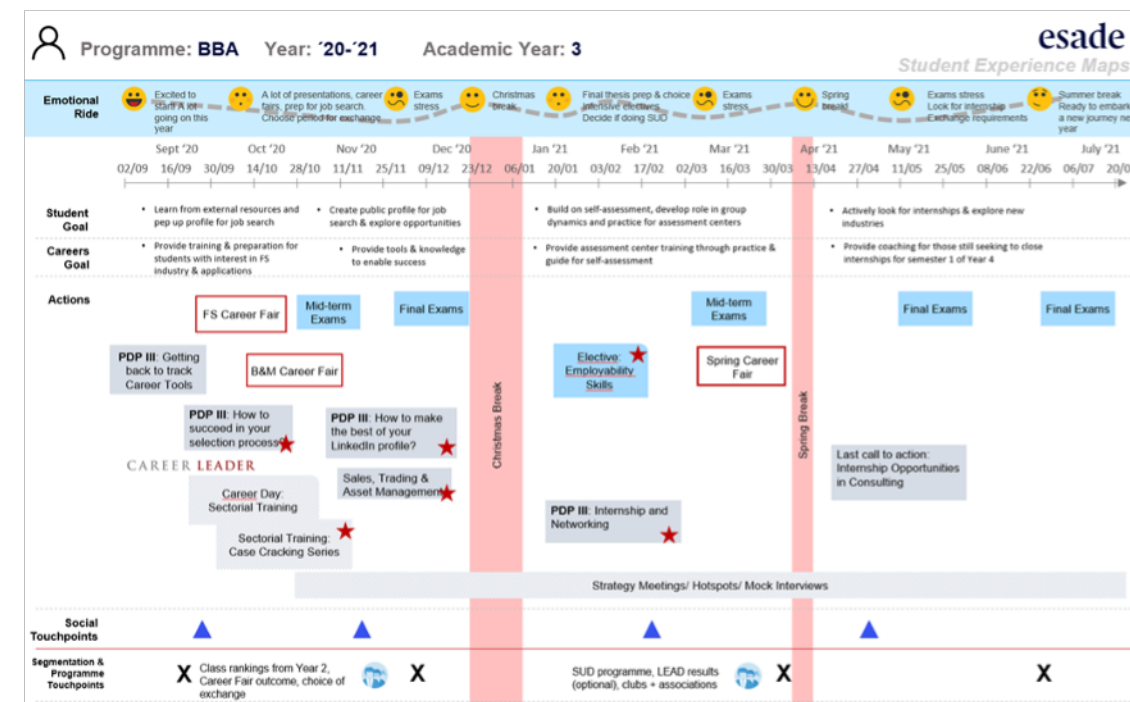
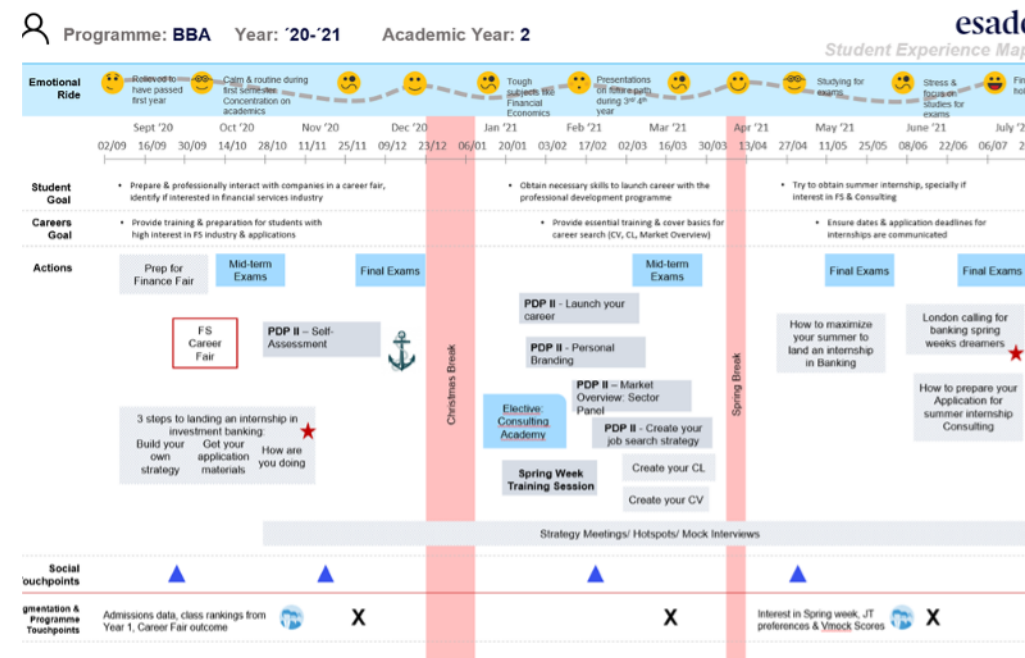
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# ANNEX

## BBA Journey 2nd & 3rd year



## Electives




### Employability Skills: How to Develop Your Skills to Advance Your Career in the Industry Sector (FMCG, TMT, Healthcare..)

Professors & Coordinators: Roque Adrade & Ferran Blanch

**BBA**

Barcelona, January 2021







### "Consulting Academy"

Breaking into Strategy and Management Consulting

**BBA**

|   | Date         | Session  | Guest Speaker   |
|---|--------------|--|---|
| 1 | January 11th | . Course Introduction.<br>. Behavioural interviewing for TMT & Industry. | Ms. Dee Clarck (Tech (Amazon), Banking (Bank of America) and Higher Education). |
| 2 | January 13th | . Group Dynamics – assessment centre & role play                         | Ms. María de Carlos.  |
| 3 | January 15th | . Marketing Case Interview.  | Corporate Recruiter.  |
| 4 | January 18th | . Latest Recruitment Trend: Gamification.                                | Ms. Amber Wigmore.  |
| 5 | January 20th | . Panel – "Getting a job in TMT & Industry"                              | Corporate Recruiters.   |

|   |   |  |   |
|---|---|--|---|
| 3 | <p>Fri, 15<sup>th</sup> Jan. 2021</p> <p>11h00 - 12h45</p>    | <p><b>Skills Development 2.</b></p> <p><b>The Oliver Wyman example.</b></p> <ul style="list-style-type: none"> <li><b>Theory. Problem Structuring.</b> How to structure a Case? Breaking the big challenge into small problems and facing them one by one</li> <li><b>Practice. Teamwork.</b> Interpretation and analysis of the information researched in a real-life project; Spreadsheets and other data sources: how to read information and how to make it meaningful.</li> </ul>                             |    |
| 4 | <p>Mon, 18<sup>th</sup> Jan. 2021</p> <p>11h00 - 12h45</p>    | <p><b>Skills Development 3.</b></p> <p><b>The Delta Partners example.</b></p> <ul style="list-style-type: none"> <li><b>Theory. Analysis and Problem Solving.</b> How to estimate important facts and figures (brainteasers); The importance (or not) of frameworks, formulas and quick maths</li> <li><b>Communication and Impact.</b> Implementation plan call to action, "So what?" and "The real impact of Information".</li> <li><b>Practice.</b> Practical Case solved out together with students</li> </ul> |  |
| 5 | <p>Wed, 20<sup>th</sup> Jan 2021</p> <p>11h00 - 12h45</p>     | <p><b>Skills Development 4.</b></p> <p><b>The McKinsey example.</b></p> <ul style="list-style-type: none"> <li><b>Theory. Communication.</b> Slides as consulting product; How to balance content and message =&gt; "Storylining: What are Action Titles?"</li> <li><b>Theory. Client interviews,</b> customer insights, how to effectively communicate, capture the client attention and get through the Q&amp;A</li> <li><b>Practice. Practical Case</b> solved out together with students</li> </ul>            |  |
| 6 | <p>Friday, 22<sup>nd</sup> Jan. 2021</p> <p>11h00 - 12h45</p> | <p><b>Practice and Wrap-up</b></p> <p><b>Roleplay Gamification:</b> "A consultant typical day PROJECT"</p> <p><b>Course Wrap-up</b></p>  |  |



## Service learning as an educational development tool in Higher Education

### ABSTRACT

This article presents a learning-service experience that was carried out in the Loyola Andalusia University throughout the 2019-2020 course in the Humanism and Basic Ethics subject with 120 students and 3 social entities. Also, it is presented the results of evaluative research about the project, which allowed to evaluate the comprehension level about social justice.

### THE INITIATIVE

This Project offers service-learning experiences applied in ethical-philosophical subjects as a key tool for the students, through education for development, for getting closer to social justice and global citizenship. Throughout the 2019/2020 course, 120 people participated in 3 social entities from Sevilla and Cordoba (Spain), within the framework of their Humanism and Basic Ethics subject imparted in the following degrees: Education, Psychology, Communication, Economy, Law, and International Relations.

### OBJECTIVE

Educate in terms of justice the youth that enters the University, and evaluate the **impact and contribution of service-learning** in understanding the concept of justice.

### RESULTS

- ✓ Due to Covid, and the transfer to the virtual sphere, the **impact of the experience was reduced in some cases**
- ✓ Students showed a **high level of compromise and participation**
- ✓ It was revealed the **importance of continuous communication** and the establishment of trust relationships with the entities
- ✓ Student that participated showed **greater social awareness** than their classmates
- ✓ Participants developed a **greater understanding of unfair situations, inequalities and poverty**
- ✓ Students highlighted the **importance of the existence of baseline conditions** for human development
- ✓ **Gender is the outstanding issue** among participants
- ✓ This experience gave students a **personal, academic, and professional learning**

### OPPORTUNITIES FOR IMPROVEMENT

- 1 Incorporate **new social entities** to raise the number of participants
- 2 Importance of **sharing their knowledge** to and the students that didn't enroll in the experience and the rest of the university
- 3 The university can **keep promoting the project**

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# El Aprendizaje-Servicio como herramienta de educación para el desarrollo en el ámbito de la educación superior

CELIA DE ARRIBA RIVAS, EDUARDO IBÁÑEZ RUIZ DEL PORTAL E IGNACIO SEPÚLVEDA  
UNIVERSIDAD LOYOLA ANDALUCÍA, ESPAÑA

### ABSTRACT

En este artículo se presenta una experiencia de Aprendizaje-Servicio que se llevó a cabo a lo largo del curso 2019-20 en la asignatura "Humanismo y Ética Básica" en la Universidad Loyola Andalucía con 120 estudiantes y 3 entidades sociales. Además, se presentan los resultados de una investigación-evaluativa sobre el proyecto que nos ha permitido evaluar el nivel de comprensión sobre la justicia social cuando se participa en una experiencia de Aprendizaje-Servicio.

## 1. DESCRIPCIÓN

Este proyecto<sup>1</sup> consiste en ofrecer experiencias de Aprendizaje-servicio en asignaturas de tipo ético-filosófico como una herramienta clave para que el alumnado, a través de la educación para el desarrollo, se acerque a la justicia social y la ciudadanía global. A lo largo del curso 2019/20, 120 personas han participado en 3 entidades sociales de Sevilla y Córdoba (España), en el marco de la asignatura “Humanismo y Ética Básica”, de los grados de: Educación, Psicología, Comunicación, Economía, Derecho y Relaciones Internacionales.

## 2. TIPO DE EXPERIENCIA

La experiencia que presentamos de Aprendizaje-Servicio (ApS) es un proyecto pedagógico de innovación educativa que se fundamenta en los pilares esenciales de la pedagogía ignaciana. De un lado, ofrece una experiencia formativa-académica, en relación con una asignatura de identidad y misión, y, por otro lado, ofrece una experiencia práctica, que tiene una dimensión colectiva (porque se realiza en una entidad social y se hace en grupo) y también tiene una dimensión individual (porque es una experiencia que genera una transformación interna en quien la vive). Concretamente se inspira en el te-

<sup>1</sup>: Este proyecto se financió con fondos de la Agencia Andaluza de Cooperación Internacional y Desarrollo (AACID) bajo el título de “El aprendizaje-servicio universitario como herramienta de educación para el desarrollo en el ámbito de la educación superior”

tralema del paradigma Ledesma-Kolvenbach: Utilitas, Humanitas, Iustitia y Fides, son todos elementos de una formación integral que trata de potenciar la incorporación de estos elementos en la experiencia académica a través del ApS.

## 3. CONTEXTO

Este proyecto se realiza en la Universidad Loyola Andalucía en el campus de Sevilla y de Córdoba y se ofrece en las asignaturas obligatorias relacionadas con la identidad y misión de una universidad jesuita; en el primer año universitario. Si analizamos cada uno de los agentes del proyecto:

- Alumnado: cursa el primer o segundo año de universidad y en algunas ocasiones ha tenido experiencia voluntaria previa (aunque no es un caso mayoritario). Su sensibilización con respecto a temas sociales es menor en el caso del género y las migraciones.
- Entidades sociales: son ONGD que trabajan en proyectos locales e internacionales y tienen una larga experiencia en educación para el desarrollo. De alguna manera están relacionadas con la identidad y misión de la Universidad.

- Profesorado: tiene una larga experiencia en docencia y con la asignatura.

## 4. OBJETIVOS Y METODOLOGÍA

El proyecto tiene como objetivo sensibilizar en términos de justicia a la población joven que se incorpora a la Universidad y además evaluar el impacto y la contribución que el aprendizaje-servicio hace en la mayor comprensión de la justicia. Por tanto, el proyecto se dividió en dos partes: por un lado, en la implementación de un proyecto de Aprendizaje-Servicio; y por otro lado, en una investigación-evaluativa sobre el impacto del ApS en el entendimiento sobre el concepto de justicia.

### 4.1 EXPERIENCIA DE APRENDIZAJE-SERVICIO



El aprendizaje-servicio es un proyecto que se ha realizado en la Universidad Loyola Andalucía desde hace más de 4 años, pero ha sido en el curso 2019-20 cuando ha cobrado una mayor consistencia y participación. A lo largo de los años, se ha ido desarrollando una definición propia de Aprendizaje-Servicio, que, basándonos en el paradigma Ledesma-Kolvenbach, pretende ofrecer una experiencia integral a la formación y aprendizaje del alumnado. Por tanto, queremos resaltar dos aspectos importantes que definen el ApS: una primera fase formativa y de aprendizaje donde el alumnado conoce el contexto de las ONG, analizan la realidad y aprenden nuevas metodologías; y una segunda fase donde trabajan en necesidades reales del entorno con la finalidad de mejorarlo, aplicando lo aprendido anteriormente y/o en su formación profesional. Todo ello con el fin último de aglutinar e integrar el aprendizaje múltiple del paradigma Ledesma-Kolvenbach: aprendizaje intelectual (Fides), personal (Humanitas), práctico (Utilitas) y social (Iustitia).

Para la puesta en práctica del proyecto es necesario identificar los agentes claves que hacen posible la experiencia, estos son: el alumnado, las entidades sociales, el profesorado y la universidad, sin que ninguno resalte sobre otro. La forma en la que se gestionan estos agentes determina los resultados del proyecto. De hecho, los intereses que tienen cada uno de los agentes han sido una referencia clave

para que las experiencias de ApS fueran óptimas.

importante que la calendarización del proyec-

| INTERESES   |  |  |   |
|---|--|--|---|
| ALUMNADO  | ENTIDADES SOCIALES   | PROFESORADO  | UNIVERSIDAD   |
| Tener una experiencia práctica y vivencial que le permite entender / sobrellevar mejor la asignatura. | Como agentes claves interesados en su labor social y transformadora, contribuir para una mayor sensibilización social en el alumnado como futuros profesionales. | Que el alumnado adquiera una serie de habilidades y competencias y que comprendan los contenidos ético-filosóficos de la asignatura, desde una experiencia personal y colectiva. | La identidad y misión que caracteriza esta universidad ha permitido enriquecer la propuesta pedagógica con experiencias de APS. |

to estuviera establecida desde el principio.

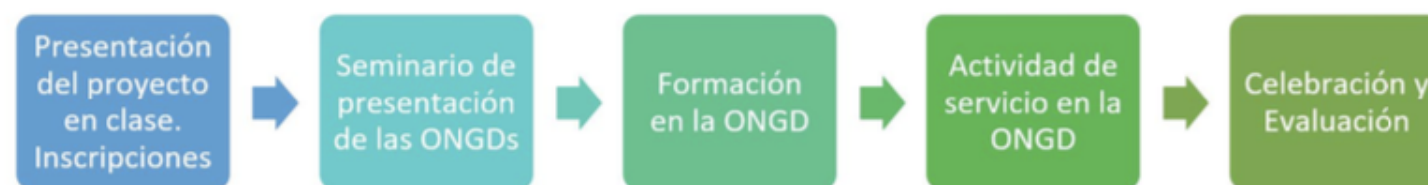
● Debía estar conectado con los objetivos curriculares y

competenciales de la asignatura.

Teniendo en cuenta los intereses que se plasman en la tabla anterior, el proyecto de Aprendizaje-servicio debía tener las siguientes características:

- Debía contar con 30 horas de dedicación; en igualdad de condiciones que el resto del grupo que no hacía Aprendizaje-servicio y realizaba un trabajo de investigación.
- Debía haber diferentes horarios disponibles para que el alumnado pudiera elegir una opción que no le impidiera faltar a clase / a la universidad
- Debía basarse en temáticas claves que se consideran relevantes para la transformación social en los contextos de Sevilla y Córdoba; y además debía contener una propuesta práctica clara de servicio social. En ese sentido, era

El proyecto se realiza a lo largo del cuatrimestre, por lo que tiene una duración aproximada de 2 meses y medio y se organiza en base al siguiente cronograma:



a. Presentación en clase

Este hito es fundamental porque sienta las bases del proyecto y, por tanto, las expectativas sobre el mismo. Los objetivos de esta sesión eran:

- Motivar a que el alumnado se interesase por el proyecto y quisiera venir al seminario de presentación

- Transmitir claramente qué era, qué no era y qué implicaciones tenía el proyecto. Aunque era voluntario participar; una vez que se decía participar, era obligatorio participar en todas las actividades de la experiencia

- Resolver dudas prácticas sobre el proyecto y sobre su evaluación en la asignatura.

b. Presentación de las ONGDs y experiencias de ApS

Las ONGDs explicaban en qué consistía cada uno de los proyectos y ofrecían una calendarización aproximada de la experiencia. En esta presentación era importante que el alumnado conociera mejor las temáticas y las fechas claves del aprendizaje y del servicio.

c. Selección y configuración de los grupos

Aunque las plazas eran limitadas, una gran parte de las personas interesadas han podido participar en la experiencia. Sólo en alguna ocasión no han podido sumarse y ha sido así porque se han interesado fuera de los plazos establecidos y los grupos estaban cerrados en las ONGDs..



Jornada de Presentación 1º Cuatrimestre

A lo largo del proceso de inscripción el alumnado decidía en función de su disponibilidad y de su interés en la temática; si decidía participar; por lo que el proceso de inscripción solía ser una primera criba de las personas que realmente iban a poder disfrutar de la experiencia.

d. Fase formativa y de servicio

Una vez que el alumnado se elegía y se distribuía entre las entidades sociales; éste era autónomo en la realización de su experiencia. Las sesiones formativas se realizaban en las sedes de las entidades sociales y tenían asignado unos días específicos.

A la izquierda, Carmen ayudando en una actividad de huerto en el colegio El Pedagogo García Navarro (Córdoba); y a la derecha, la exposición “Convivimos” de la Asociación Claver en la Universidad Loyola



Además, se realizó una jornada de cierre, con todas las personas que participaron (alumnado, profesorado y entidades), para compartir lo que se había hecho en cada ONGD y para evaluar la propia experiencia.



Jornada de cierre del 1º Cuatrimestre

**e. Cierre de la experiencia y evaluación**

El alumnado entrega un diario de campo, que constituye la herramienta clave de autorreflexión sobre la experiencia ApS en diferentes ámbitos: en relación con la asignatura que cursa, en relación con las temáticas y experiencias vividas en la ONGD y una autoevaluación de la propia experiencia. Esta herramienta permite que el alumnado profundice en la experiencia desde la autorreflexión.

**4.2 INVESTIGACIÓN-EVALUATIVA DEL IMPACTO**

La investigación se ha realizado a través de encuestas y grupos de discusión con el alumnado al inicio y al final del cuatrimestre; comparando entre el alumnado que participó en la experiencia de Aprendizaje-Servicio frente a los que no lo habían hecho.

**a. Encuestas**

Se realizaron dos tipos de encuestas: encuestas

generalistas sobre temáticas claves de sensibilización social y encuestas de evaluación del ApS. Las primeras fueron realizadas por todo el grupo de aula y las segundas se realizaron por los participantes en el Aprendizaje-Servicio. Ambas encuestas se realizaron al inicio y al fin del cuatrimestre, permitiéndose hacer un análisis comparativo sobre los cambios en el aprendizaje y percepciones del ApS, a lo largo del curso 2019-20.

Basándonos en el objetivo inicial del proyecto “El aprendizaje-servicio universitario como herramienta de educación para el desarrollo en el ámbito de la educación superior”, que planteaba de qué manera las experiencias de ApS, desde un enfoque de Educación para el desarrollo, promueven en el alumnado un mayor entendimiento del concepto de justicia y de la ciudadanía global; elaboramos unas encuestas con las siguientes temáticas:

|                   |   |
|-------------------|---|
| Compromiso social | Es importante ayudar a la gente que, en otras partes del mundo, vive peor que yo<br>Creo que como sociedad debemos tener una actitud de acogida con los migrantes que llegan a nuestro país, proveyéndoles de los recursos para atender sus necesidades básicas<br>La Universidad debería ofrecer en su formación experiencias que ayuden a fomentar el compromiso social en los estudiantes<br>Si quieres triunfar en la vida no puedes perder el tiempo en actividades altruistas o de voluntariado |
| Justicia social   | Para el desarrollo económico de nuestro país es necesario invertir en solidaridad y luchar contra la exclusión social; si no, nunca se va conseguir erradicar la pobreza<br>Considero importante disminuir las desigualdades sociales en nuestro país   |
| Derechos humanos  | Los derechos humanos básicos se deberían aplicar para todos los habitantes de nuestro país, sin excepción de etnia, país de origen, religión, etc.<br>En la sociedad existen relaciones de poder desiguales que discriminan a determinadas personas por cuestiones de género, raza, etnia, religión y origen; y ante esto no podemos hacer nada. Deben existir leyes y políticas públicas específicas para garantizar el ejercicio de los derechos de los grupos más vulnerables y marginados         |
| Interculturalidad | Considero importante tratar de entender a las personas de diferentes culturas o con opiniones distintas a las mías.   |
| Género            | La desigualdad de género es un serio problema de la sociedad española. Las oportunidades laborales, de vida social y las opciones para decidir sobre su vida dependen de si eres hombre o mujer   |

## b. Grupos de Discusión

Los grupos de discusión se realizaron al finalizar la experiencia ApS y tenían como objetivo recoger aspectos cualitativos del impacto de la metodología. Las preguntas del grupo de discusión trataron de evaluar: el contenido del ApS, la metodología como instrumento de aprendizaje en la asignatura y por último una evaluación cualitativa del ApS.

En el caso del alumnado, se realizaron 4 grupos de discusión (participaron 17 estudiantes en total), y los criterios que se tomaron para seleccionar al alumnado fueron: interés y aprovechamiento de la experiencia de Aprendizaje-Servicio y disponibilidad horaria para participar en el grupo de discusión.

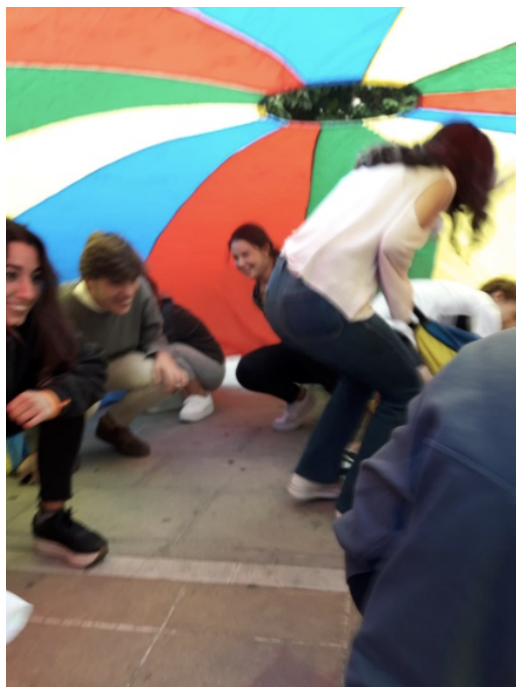
## 5. RESULTADOS OBTENIDOS Y/O LECCIONES APRENDIDAS

### 5.1 RESULTADOS DE LA EXPERIENCIA ApS

En cada entidad se trabajó desde diferentes temáticas:

1. *InteRed (Sevilla y Córdoba)*. Se ha trabajado sobre el proyecto “Actúa con cuidados. Transforma la realidad”, basado en el ecofeminismo y sobre el proyecto “[Toca igualdad](#)” que trabaja con chicos y chicas, la responsabilidad para visibilizar y denunciar los micromachismos.

2. *Entreculturas (Sevilla y Córdoba)*. Se ha trabajado sobre el proyecto “La luz de las niñas”, que trata de visibilizar las diferentes violencias



**El grupo de InteRed aprendiendo “juegos cooperativos” para hacerlo en el Colegio**

des para visibilizar la situación.

3. *Asociación Claver (Sevilla)*, trabaja con el colectivo migrante y también con la realidad que viven las mujeres migrantes en Sevilla. En el primer cuatrimestre se realizó una jornada intercultural y en el segundo cuatrimestre se creó la cuenta @nuestracasaeselmundo\_ a través de la cual se hicieron varios directos para hablar sobre las problemáticas de las migraciones.

que sufren las niñas por todo el mundo. En el primer cuatrimestre realizaron actividades en coles, tanto en Sevilla como en [Córdoba](#). En el segundo cuatrimestre realizaron un [vídeo](#) en re-



**A la izquierda, la cuenta de Instagram del grupo de Claver; y a la derecha el grupo de Entreculturas en el instituto Juan de Mairena (Sevilla)**

### 5.1.1 Especial covid19

En el 2º cuatrimestre del curso 2019/20 hicimos una adaptación del programa inicial a las restricciones establecidas por la situación del COVID 19. La experiencia de Aprendizaje-Servicio se trasladó al formato virtual y ello provocó que, en algunas ocasiones, el impacto de la experiencia fuera menor. Por un lado, el alumnado había puesto expectativas en vivir una experiencia presencial (por ejemplo, visitar un centro de internamiento de extranjeros, CIE), que no siempre se podía replicar en un formato online. Por otro lado, la rápida adaptación al formato online y la falta de recursos provocó que el ajuste no



**Jornada virtual de cierre del proyecto**

podiera ser tan eficaz como si se hubiera hecho presencial. No obstante, y a pesar de todo esto, el compromiso y participación del alumnado fue alto y realizaron actividades de difusión de forma activa.

Esta experiencia nos ha hecho visibilizar la importancia que tiene la comunicación constante y la creación de relaciones de confianza

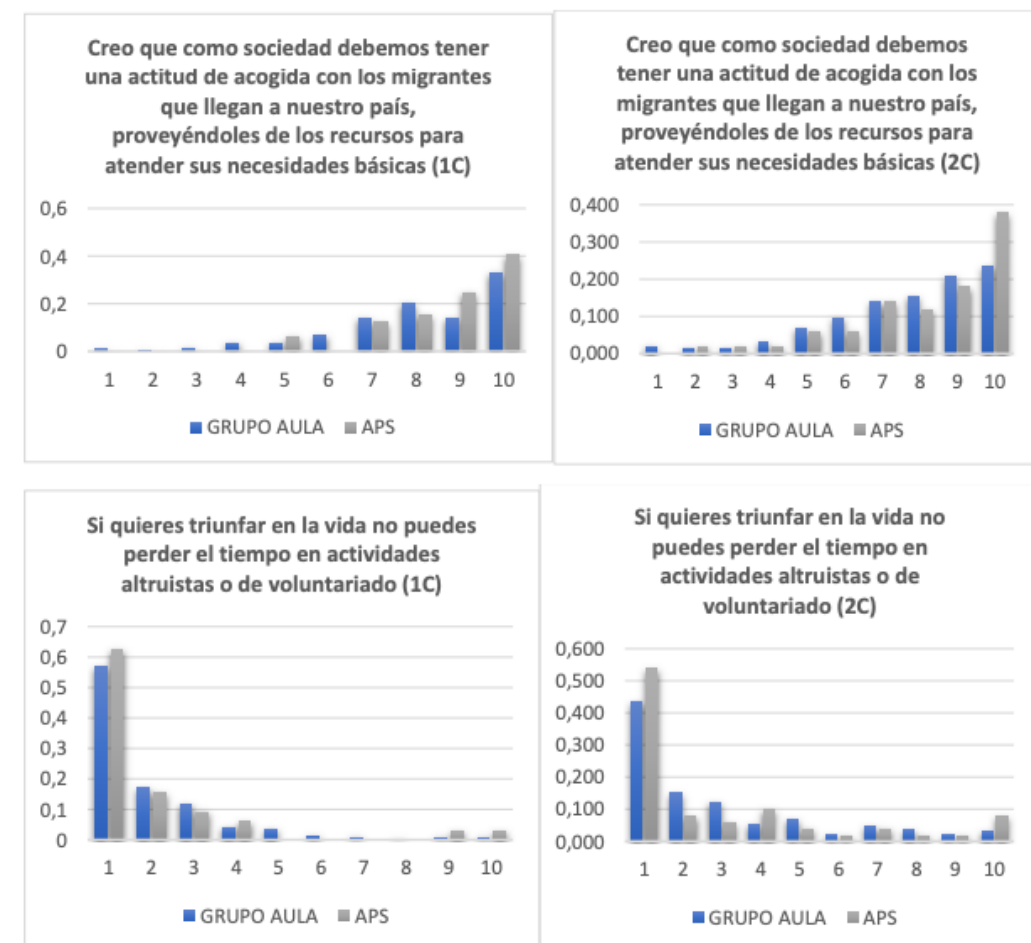
con las entidades; para garantizar un buen apoyo ante las circunstancias e incertidumbre de estos tiempos. Este aspecto consideramos que es clave en proyectos de aprendizaje-servicio.

## 5.2 INVESTIGACIÓN-EVALUATIVA SOBRE EL IMPACTO

Los datos vislumbran que no existe un resultado homogéneo en las temáticas sociales y hay algunos temas que generan más controversia y disenso; y en cambio, otras temáticas, mejoran indiscutiblemente con la participación en el programa ApS, redundando en una mayor comprensión de los temas de justicia y una mayor sensibilización social sobre, por ejemplo, el colectivo migrante.

### a. Compromiso social

Como se puede apreciar en las gráficas, para cada caso, los participantes ApS muestran mayor sensibilización social, frente a las respuestas del grupo global de aula. Además, el mayor no de respuestas, en el caso de los participantes ApS, se concentran en aquellos puntos porcentuales que se consideran más justos (en el caso de las primeras preguntas sería el valor 10). No obstante, hay que destacar que en el caso de la pregunta: “Si quieres triunfar en la vida no puedes perder el tiempo en actividades altruistas o de voluntariado”, aunque existe un mayor número de respuestas cercanas al 1 en el caso de



los participantes de ApS; no debemos obviar, que también existe un mayor no de personas ApS que han contestado 10. Esta pregunta genera debate y controversia y por ello las respuestas así también lo son. Si en las otras preguntas, el grupo de ApS demuestra, sin duda, un mayor compromiso social; podemos pensar que la diversidad de respuesta en la pregunta 3, hace más referencia a la definición de “éxito”, y cómo este, se relaciona con el compromiso social y/o el voluntariado. Se podría pensar que existe un peque-

ño grupo de ApS que demuestra esa sensibilización social en las preguntas anteriores; y en esta podemos pensar que, para esas personas, “triunfar en la vida” no tiene nada que ver con hacer voluntariado; y, por tanto, éste se define en términos económicos, y, por tanto, un voluntariado no resulta una actividad remunerada y no redundaría en un éxito económico.

### b. Justicia Social

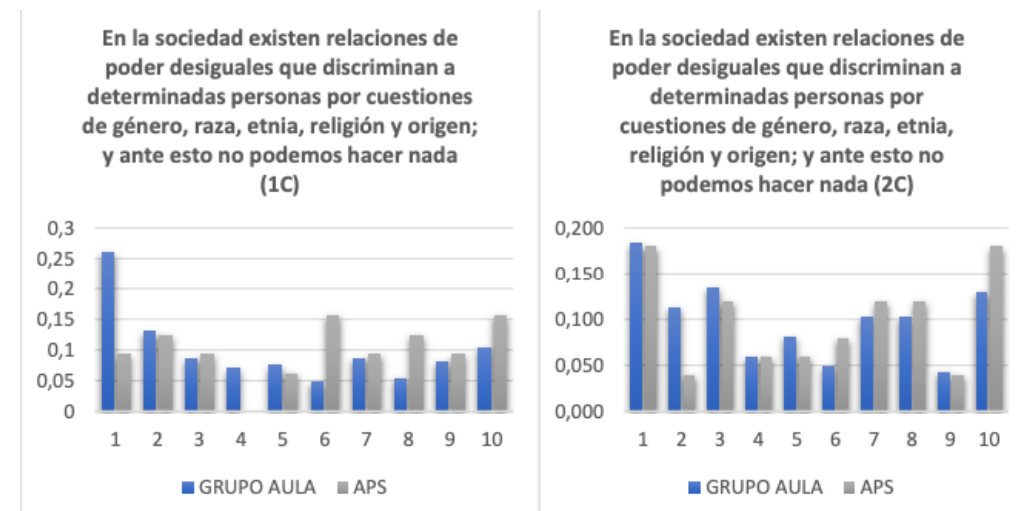
En esta categoría se vuelve a confirmar que las participantes de ApS demuestran una mayor sensibilización sobre la justicia social. En esta categoría las respuestas son más homogéneas y existen menos disenso en el caso de las participantes de ApS. En el caso del grupo de aula, la dispersión de los datos no es alta, pero existe menos homogeneidad en las respuestas; por lo que se puede concluir que existe en el grupo de aula una menor sensibilización con la justicia social.

### c. Derechos Humanos

En esta categoría debemos distinguir entre una pregunta y otra; puesto que los resultados son muy diferentes.

Los derechos humanos básicos son los más recono-

cidos sobre el resto de las preguntas; ya que más del 70%, en todos los grupos estudiados, están de acuerdo en un valor 10 con que todos los habitantes de un país, sin excepciones, tengan reconocidos los derechos humanos básicos.



En cambio, en la segunda pregunta, se puede ver que existe una gran dispersión de los datos y un gran disenso. De hecho, existe un gran número de respuestas concentradas en valores totalmente opuestos, en el valor 1 y en el valor 10. Podemos pensar que esta pregunta puede tener múltiples interpretaciones, por un lado, si existen relaciones de poder desiguales y, por otro lado, si, ante esto, no podemos hacer nada. Hay que señalar que, frente al resto de preguntas, en este caso, las respuestas se concentran sobre todo en los valores intermedios; mientras que, en el resto de las preguntas, las respuestas se concentran más en los extremos. Esto

nos confirma que es una pregunta que puede tener diferentes interpretaciones y, por tanto, es más difícil posicionarse en los extremos 1 o 10.

Aunque sabemos que puede haber varias interpretaciones de la pregunta, podemos pensar que las participantes de ApS son más conocedoras de la relación desigual del poder, y puesto que están en relación directa con el tejido social andaluz que luchan por la justicia social, consideran que sí se podría hacer algo, porque ya se está haciendo.

#### d. Interculturalidad



Esta pregunta tiene respuestas similares, aunque hay que señalar que prácticamente todas las respuestas se concentran por encima del 6 o 7, tanto para el grupo de aula como a las participantes de ApS. Esto nos confirma que el perfil universitario, tiene una apertura para conocer y entender personas de otras culturas.

#### f. Género

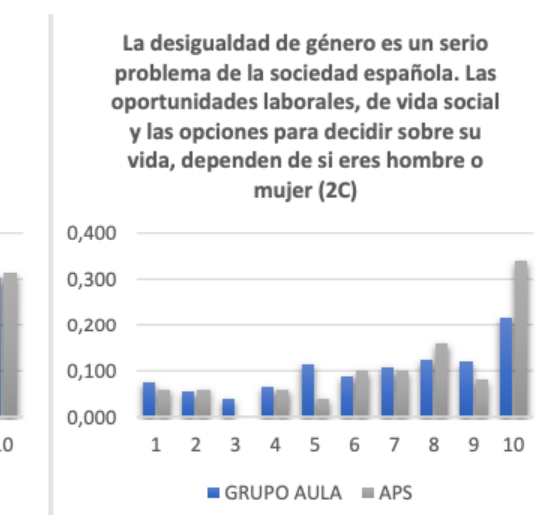
Esta es otra pregunta para la que hay un mayor consenso y en este caso está relacionado directamente con el contenido de la pregunta, y no tanto con la posible interpretación de la misma. Esto nos hace pensar que existe una sensibilización menor con respecto al género; más acuciante en el caso del grupo de aula, y en el primer cuatrimestre. Hay que resaltar también que, en el segundo cuatrimestre, los proyectos de las ONGDs tienen más relación con la temática del género. Las respuestas sobre esta pregunta se profundizan más en el análisis de los grupos de discusión.

### 5.2 ASPECTOS CUALITATIVOS

#### a. Mayor comprensión de las situaciones de injusticia, las desigualdades y la pobreza

En el grupo de discusión, se aprecia que existe una mayor comprensión del concepto de justi-

cia, ya que analizan y debaten críticamente sobre la complejidad del concepto desde la óptica del modelo en el que vivimos y las relaciones desiguales que existen en él. “Vivimos en un mundo especialmente capitalista [...] al final es un círculo vicioso que va aumentando y el que tiene dinero se queda muy arriba y el otro muy abajo y no conviene dar ese cambio”; “las desigualdades sociales siempre van a estar ahí [...] La riqueza mundial está acumulada aproximadamente por tres familias [...] La mayoría de la gente que estamos aquí, podemos decir que vivimos bien, imagínate esa gente lo que tiene y lo que le sobra. [...] Esas familias intentarán perpetuarse en el



mente, es muy difícil, porque nos beneficiamos de los recursos de los países en desarrollo. “Si todos los ricos, no fueran tan ricos, sería factible acabar con la pobreza; pero no todo el mundo tiene ese mismo interés, es lo que lo hace más dificultoso”. “Hay gente que lo está pasando mal, y se ha invisibilizado muchísimo lo que tiene que ver con la pobreza. Y no hay que irse a África para ver la pobreza, es que tú cruzas de barrio, y ves como de un barrio a otro, hay muchísima diferencia”.

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“La desigualdad y la pobreza se retroalimentan, si tú sufres opresión por motivos raciales, de género, tienes más posibilidades de ser una persona que no alcance unos niveles óptimos, o que no cubra sus necesidades básicas”.

#### b. Condiciones de partida para el desarrollo humano

El alumnado, plantea “todos los seres humanos deberíamos conseguir que al menos las necesidades básicas estén cubiertas” y se resalta la importancia de contar con una educación pública, gratuita y universal; una sanidad pública y un Estado democrático; como condiciones básicas para el desarrollo humano. Además, reconocen la necesidad de que, se incorpore en la educación, experiencias similares al aprendizaje servicio, para que conozcan mejor la realidad del mundo. “Conocer la suerte que tenemos muchas personas, de tener privilegios, que para nosotros no son ni privilegios, sino que está en nuestro día a día [...] El poder abrir los ojos a unos críos pequeños y pensar en contribuir desde pequeños”.

Entienden que las condiciones que se te dan al nacer pueden condicionar más adelante. “Si tú vives

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en un barrio más conflictivo, al final vas a ir al colegio de ahí y con gente de allí, y el que esté en un barrio mejor, estará en un colegio mejor. No entras en contacto con gente de diferentes clases sociales en el colegio, entonces siempre va a haber más exclusión”, “Una persona pobre puede llegar alto en la vida pero le va a costar mucho más que a una persona que ya tiene dado todo, porque a lo mejor, no tiene acceso a una educación tan fácil como otra persona”, “Ellos ya empiezan desde una situación de desigualdad al ser más pobres”, “la pobreza está muy relacionada con el tema de racismo, las personas de color viven en los barrios más marginales y malos”, “En una carrera va a empezar desde atrás porque influyen muchas condiciones, la familia, el ambiente, en el que se han criado, etc.”

“Me da mucho miedo que hay personas que viven en la pobreza, y crean que es su vida y que nada puede cambiar, y se tienen que quedar porque es el lugar que le ha tocado y no tienen aspiraciones porque por mucho que lo hayan intentado, no podían”.

- c. Soluciones y alternativas todavía por descubrir por la complejidad del problema

Debate sobre la justicia en el grupo de discusión CO 1C:

“La justicia no es solamente igualdad, ni si quiera sólo equidad, sino que va más allá. La justicia tiene que darle a cada uno el lugar que merece o necesi-

ta”;

Para una sociedad justa, tendremos que centrarnos en ver cómo debería ser ese sistema. Yo creo que una sociedad justa, es una sociedad organizada y para que englobe todo lo que hemos dicho tiene que haber un sistema

que lo respalde, que encaje”; “¿Cómo organizar la justicia? Es super complicado”.

“Gracias a que se pusieron las medidas del ODM, se ha podido lograr eso, y quiere decir que se puede avanzar”

“Se necesita muchísima voluntad política, y yo también tengo una responsabilidad, porque yo también puedo hacer. Son seres humanos, no necesitan únicamente un estado civil, sino que necesitan una recepción social y humana”.

“Una sociedad es más sostenible cuanto más humana es”. “Con cambios se hacen grandes cambios, pero claro que ser el motor de esos cambios”

- d. El género: tema pendiente

En general, es un tema que no se considera prioritario, porque se han realizado muchos avances

“**Es un tema (el género) que no se considera prioritario, porque se han realizado muchos avances en España, aunque no tanto en países del Sur. Saben reconocer las diferentes dimensiones del género y sus consecuencias [...] Consideran que existen otros temas que son más prioritarios, como la pobreza, la desigualdad, el medio ambiente o el racismo**

en España, aunque no tanto en países del Sur. Saben reconocer las diferentes dimensiones del género y sus consecuencias: brecha salarial, pequeñas faltas de respeto (micromachismos), la labor de cuidados, la independencia/ autonomía económica de la mujer, las diferencias de género en el hogar (educación de hijos/as, reparto de tareas, buenos tratos). Consideran que existen otros temas que son más prioritarios, como la pobreza, la desigualdad, el medio ambiente o el racismo (coincidieron con las protestas de “Black Life matters” que hicieron evidente el racismo en EEUU). Simultáneamente, algunas personas puntualizaban que es un reto social que sigue existiendo y que no se conoce tanto como se debería conocer. “No sé si es un reto prioritario, porque creo que todavía llevamos poco tiempo concienciando lo suficiente como para que esto se haya transformado en un reto social”. Esto evidencia que puede haber diferencias entre lo que se considera que es un reto prioritario, a título personal, y lo que la sociedad debería pensar que es prioritario. Y otra persona, puntualizaba: “El género es un objetivo social, necesario para crecer como sociedad”.

- e. Aportes en su aprendizaje personal, académico y profesional

Es una experiencia que les cuesta ver a priori la relación con conceptos amplios de ética y filosofía, y conforme avanzan en el temario (derechos humanos, ciudadanía global) que tiene más relación directa con la experiencia y también conforme van entendiendo el para qué y por qué del Aprendizaje-Servicio, se produce la conexión entre la teoría (vista en la asignatura) y la práctica (desde la experiencia de Aprendizaje-Servicio). Esto se ha producido sobre todo cuando han realizado el diario de campo (que ha sido al finalizar la experiencia), donde se han visto obligados a poner en común lo aprendido en la asignatura, con lo aprendido en la experiencia Aprendizaje-Servicio.

Sin embargo, aunque a priori no han visto esa relación, afirman que “si no tuviéramos esos conceptos teóricos, no hubiéramos aprovechado/aprendido tantas cosas”. “Te enseña mucho más que hacer un trabajo escrito, aprendes a colaborar, a confiar, muchos valores y conocer personas”. “A mí me preguntan, cuál es mi experiencia, y sé decirle por día todo lo que hicimos, las dinámicas, todo, y cómo fue la experiencia final y todo lo que me ha marcado y he aprendido”, “te aporta algo, que se queda en ti”. “Cuando no hay esa práctica, el aprendizaje no es profundo”. “Cada cosa que veíamos en la asignatura, como que lo asentaba... ciudadanía social, desarro-



llo moral, puedes hacer un debate y reflexionar, pero luego cuando vas allí, de verdad lo desarrollas, dices, es que una ciudadanía social es necesario por lo que estoy viviendo aquí. Me quedo con ese empujón que me dio la realidad”. “Eso del bien común, esta experiencia nos ha dado una perspectiva en la que sabemos mirar y buscar para mejorar la sociedad, no por nosotros mismos, sino para mejorar qué podemos hacer por los demás”. “Al ser práctico, te ayuda a entender mucho más claro” “Es una asignatura que vela por la sociedad, te da más argumento que un trabajo, que es leerse un libro y dar mi opinión”. “Te invita a reflexionar, está trabajando con esa situación de pobreza, te invita sobre todo a reflexionar y tomar consciencia de muchos problemas sociales, es una manera de involucrarte con esos problemas”. “Hemos conseguido que el COVID no nos parara”.

Además, es una experiencia que ofrece algo más allá de la asignatura donde se inserta. “Es bonito tener la oportunidad mientras tú estás estudiando de irte a la realidad, encontrarte con ese choque de realidad”. “Me ayuda abrir la mente y a pensar”. Algo que valoran como futuras profesionales de: ADE, de Psicología y Criminología, de Educación, de Relaciones Internacionales, de Derecho. “yo creo que ha aclarado que la educación es mi vocación”. “Cuando salgas después de 5 años, te quedarás con las cosas que te han marcado”.

## 6. OPORTUNIDADES PARA MEJORAR

Consideramos que este proyecto ha causado un impacto positivo sobre los diferentes agentes que intervienen. Si bien, creemos que es necesario sumar nuevas entidades sociales que permitan que un mayor número de estudiantes participen y que además las entidades no se saturen con un número demasiado grande de participantes. Por otro lado, el grupo de profesorado enfatizaba en la idea de que un mayor número de estudiantes realizara esta experiencia y que además existiera un intercambio de conocimientos y aprendizajes entre los estudiantes que participaban y los que no. El grupo de profesorado comentó que el grupo que no participa en APS ve nada o muy poco de lo que supone la experiencia y por tanto se desaprovecha el potencial de esta. Y lo mismo ocurre en su impacto sobre la Universidad, advirtiendo por tanto la urgencia de incorporar mecanismos de comunicación y difusión de la experiencia con la comunidad universitaria.

Por último, consideramos que tenemos la oportunidad de seguir potenciando el proyecto, gracias al apoyo de la red de UNIJES que está apostando por la institucionalización del APS en las universidades jesuitas. Es por ello que estamos trabajando en generar una estructura que permita ofrecer experiencias de ApS en un mayor número de asignaturas y que no se quede sólo en experiencias aisladas; sino

que formen parte de la universidad, como parte de su identidad y misión.

## Experience of teaching analog and digital electronic using remote laboratories during COVID-19 pandemic.

### ABSTRACT

WebLab-Deusto research team (<https://weblab.deusto.es/>) has been developing and using remote labs as learning tools during last 15 years. In this work we present how we have included two of them, VISIR and WebLab-Deusto FPGA remote labs, as a regular tool for teachers and students, being a key element during the second semester of 2019/20 academic year. During the COVID-pandemic, these two remote labs had allowed as to go on with our teaching methodology and to obtain the expected learning outcomes. We share in the following sections how we did it and how interested institutions and teachers can follow our steps.

### THE INITIATIVE

The best practices that the authors introduce in this work describe their experience using VISIR and Weblab-Deusto FPGA remote labs as support for teaching basic analog electronics and digital electronics. It is true that COVI-19 pandemic has been a litmus test for checking the performance of our remote laboratories, as they have gone from being a complement to traditional laboratories, to being the only available tool to continue teaching from home.

Once the lab is tested, they used it with students. In general, the authors considered the remote laboratories as a complement to the hands-on or traditional laboratories. Its use arises from the need to offer students of the Faculty of Engineering an additional tool to continue their laboratory practices, since 90% of our subjects have practical content in the laboratory. In this context, where they include the need to work with small groups of students, is where remote laboratories offer a number of facilities or **advantages**:

- **24/7 availability.** This means that our labs are always accessible through Internet.
- The remote labs are **multiplatform** and do not require any special software.
- Once the remote lab is stable and operates properly, **its maintenance is easier and cheaper than a traditional lab**, where several workbenches have to be set up and revised for each lab session.

### OBJECTIVES

- To offer students tools as close as possible to those available in the traditional laboratory
- To enable them to carry out the same actions and achieve the same learning outcomes
- That they were simple and intuitive to use
- To allow different degrees or levels of learning, starting from simple exercises and being able to reach higher levels of complexity.

### RESULTS

According to a survey the students answer after the project:

- ✓ The remote lab is **easy to use**
- ✓ The remote lab **helps them learn**
- ✓ When working on the remote lab **students concentrate on the assigned tasks.**
- ✓ The remote lab layout is sufficiently apparent so that **help is not needed to use it.**
- ✓ The remote lab will **help students pass the course.**

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# Experience of teaching analog and digital electronic using remote laboratories during COVID-19 pandemic.

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UNIVERSITY OF DEUSTO, SPAIN

### ABSTRACT

WebLab-Deusto research team (<https://weblab.deusto.es/>) has been developing and using remote labs as learning tools during last 15 years. In this work we present how we have included two of them, VISIR and WebLab-Deusto FPGA remote labs, as a regular tool for teachers and students, being a key element during the second semester of 2019/20 academic year. During the COVID-pandemic, these two remote labs had allowed as to go on with our teaching methodology and to obtain the expected learning outcomes. We share in the following sections how we did it and how interested institutions and teachers can follow our steps.

## 1. DESCRIPTION

A remote laboratory is a learning tool used mainly as support in educational platforms related to science and engineering. These tools are typically used in those cases in which developing certain work in the campus facilities is not easy (availability of equipment, schedules, etc.). The remote laboratory is also offered as a complement to the face-to-face laboratory sessions, allowing students to repeat an exercise or an experiment remotely, as many times as they wish, eliminating the restrictions in terms of distance and time, since through the Internet students can access the laboratory whenever they want and from wherever they want [1].

A remote laboratory can be defined as an emerging educational resource that combines hardware and software technologies, which facilitates the remote distribution of practical content via web and allows the user to configure, control and/or monitor real physical parameters of the experiment under test.

There are practically as many types of remote laboratories as there are teaching subjects, since a remote laboratory could be developed to allow access to practically any type of experiment, whether in the field of chemistry, physics, robotics or even nuclear energy as in the case of the remote laboratory based on a nuclear reactor offered by MIT [2].

“***A remote laboratory can be defined as an emerging educational resource that combines hardware and software technologies, which facilitates the remote distribution of practical content via web and allows the user to configure, control and/or monitor real physical parameters of the experiment under test.***”

This means that the use of remote laboratories is not restricted for application in a single educational environment, but can be used to control more equipment than those that are usually controlled by a computer. Then, in a remote lab, the workbench is not in front of the student, because it is instead provided through the Internet. Using this approach the experiment can be performed anywhere there is an Internet connection (at home, on the street, at a café. . .). As del Alamo said “If you can’t come to the lab. . . the lab will come to you” [3].

Throughout the following sections, we will present the use that the authors of this work have been making of 2 examples of remote laboratories, which have been a key tool during the past pandemic to continue offering content and practical experiences to our students in the field of electronics.

### 1.1. SHORT INTRODUCTION TO VISIR REMOTE LAB

VISIR is probably the most awarded, shared, referenced and longest-running remote laboratory in

the world. Professor Ingvar Gustavsson, after some prototypes development (he started his work in the VISIR in 1999), released the version 3 of the VISIR remote lab in 2009. The main improvement and advance respect similar initiatives was the designed relay switching matrix that allowed students to create over it real implementations of circuits using real components, by previously the design of these circuits in a virtual breadboard. The completed and detailed description of VISIR was first included in the work published in IEEE Transactions on Learning Technologies [1]. This paper, according with IEEExplore has been cited 103 times and has received 1391 full text views. According with Google Scholar has been cited 208 times, so it is possible to observe the impact that this publication had on the area of knowledge of remote labs. In fact, if a search is performed in (only) IEEExplore using the word “VISIR”, 74 conference papers, 10 papers in journals and 2 early access articles are shown, a scientific production generated by multiple authors from all around the world. It is probably not possible to find a technological development in the field of distance, remote or virtual education that has had such an impact like VISIR.

This extensive scientific production is possible thanks to the kindness of Professor Ingvar Gustavsson, who always facilitated that any institution could deploy an instance of the VISIR laboratory.

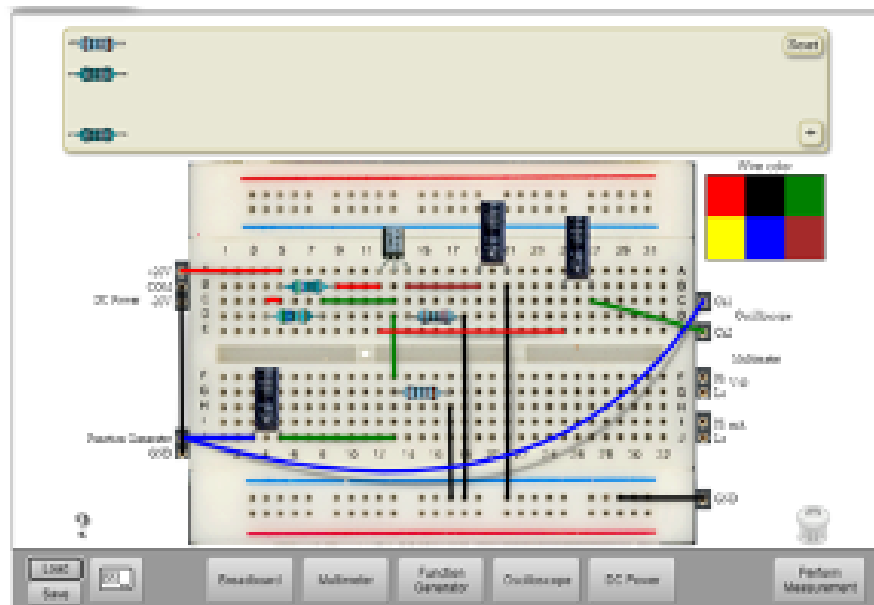
Then, it is possible to find VISIR instances in Sweden (1), Spain (2), Portugal (1), Austria (2), Germany (1), India (1), Morocco (1), Argentina (2), Brazil (2), Costa Rica (1) and USA (1). VISIR has been also the core and engine on multiple European projects as VISIR+ [2] and PILAR [3], which have allowed the spread of VISIR around the world, increasing the number of potential users of this lab. Even more, the International Association of Online Engineering (IAOE) count with a Special Group of Interest denoted as VISIR Federation which goal is to provide a uniform system where students can register and use the federated VISIR based laboratories and learning materials from different institutions belonging to the federation ([http://online-engineering.org/VISIR-Federation\\_about.php](http://online-engineering.org/VISIR-Federation_about.php)).

In 2015, the Global Online Laboratory Consortium awarded the VISIR as the best remote laboratory in the world. In addition, in 2018, the European Society for Engineering Education (SEFI) posthumously awarded the Maffioli Award Professor Ingvar Gustavsson for his work about the importance of performing lab experiments in different ways in engineering education.

Basically, VISIR offers the same instruments and mostly same capabilities of an analog electronics hands-on labs, but in a remote way. Thanks to the provided realistic interfaces (Figure 1), user can

build and test electronics circuits using real components and also carries out the necessary wiring so that the circuit made by the student on the virtual

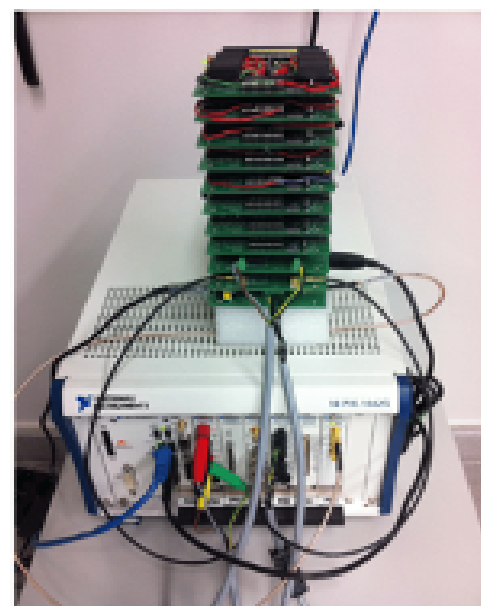
**Figure 1. VISIR remote lab breadboard at client interface**



It is important to bear in mind that the use of the VISIR requires a previous configuration phase in which the teacher is involved. As in a real-traditional experience, the teacher prepares the laboratory with the components and circuits he wants to experiment with his students. In VISIR there is a similar process, so that only those components and circuits predefined by the teacher can be practiced by the students.

This preliminary configuration phase is carried out on the switching matrix, the key part of the VISIR (Figure 2). In this switching matrix, the teacher places the components he wants to offer to his stu-

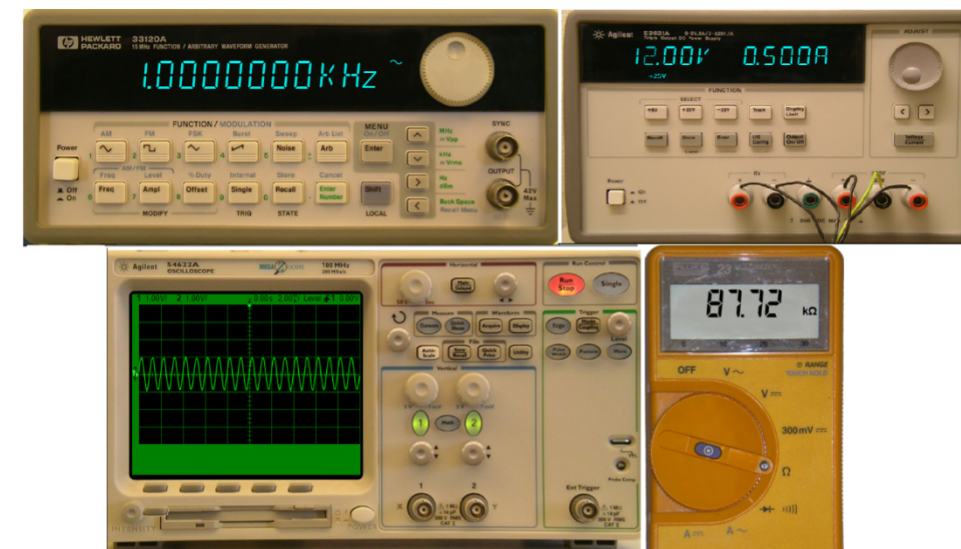
**Figure 2. VISIR remote lab hardware: switching matrix on the top and the PXI with the instruments at the bottom.**



board, becomes a real circuit through the switching matrix.

Once the circuit is implemented, it can be powered by the DC power supply or by the function generator (AC source) and measure the circuit response using the oscilloscope and/or multimeter functionalities (Figure 3). All these instruments are hosted and managed by a National Instruments PXI system, which provides speed, robustness and reliability to the measurements made.

**Figure 3. Set of available instrument at VISIR.**



With current VISIR setup provided by the University of the Deusto, the following set of experiments can be performed:

1. Resistor association, Ohm's Law and Kirchoff's Law experimentation with up to four resistors (2 of 1kΩ and 2 of 10kΩ). With this 4 resistors, the user can build any topology. Also the voltage can be measured in all the nodes and currents can be measured at the beginning of all the generated branches.
2. A different set of RC and CR filters for its characterization: frequency response, cut-off frequency, Xc measurement, and so on.
3. A different set of RL and RLC circuits.
4. Diode characterization, measuring its characteristic V-I curve. Different set of diodes are available.

5. Half-wave rectifier with three different types of diodes. Also the rectifier can be combined with an output filter to obtain an AC-DC converter.
6. A set of circuits with operational amplifiers
7. Characterization of the different working areas of a BJT

The available switching matrix at Deusto is not still full of components, so we are open to new ideas of circuits to include into our matrix. In fact, many of the latest circuits introduced have been possible thanks to the contributions of teachers from other institutions who have used the VISIR, have been able to test its potential, and have asked us to add new components to create the circuits they were previously using in their subjects. VISIR has proven not only to be a valid educational tool, but also a meeting point for teachers to share experiences and knowledge.

The remote lab automatically manages the queue of requests sent by users, being transparent to them. For each request the average time it takes the system to build the circuit and return the measure-

ments is 100ms. This makes it possible for the user experience to be real-time access. In performed tests, with up to 80 students connected, the waiting time to receive the measurement of your circuit is 1-2 seconds.

## 1.1.2. SHORT INTRODUCTION TO WEBLAB-DEUSTO FPGA REMOTE LAB

Programmable logic is fundamental in current electronics portfolio. Experimentation is usually carried out by implementing digital systems on FPGA technology [4]. The continuous advance in the technology causes the gradual appearance of new devices

that imply the consequent updating of the hands-on laboratories. This technological advance, together with the demanding process of synthesis and implementation required in FPGA experimentation, entails the need to use proprietary software from the manufacturer of the device that usually requires considerable performance and is sometimes not multiplatform.

The fundamental characteristic of the WebLab-Deusto

remote laboratory that we use, is the division of the workflow stages into three processes, all of which can be developed from the laboratory itself with the only requirement of an Internet browser. For the development of the two initial stages (Analysis of project requirements and System design through a hardware definition language), the remote lab provides an advanced HDL editor, along with a cloud file system for each user (Figure 4). All students can have their IDE online simultaneously in which to capture the design through VHDL or Verilog.

**Figure 4. Interface of the WebLab-Deusto FPGA remote lab**



Once the student finishes with the coding and wants to proceed to the synthesis and implementation of the designed circuit, you must click on the “Synthesis / Implementation” button. Once the student fini-

shes with the coding and wants to proceed to the synthesis and implementation of the designed circuit, you must click on the “Synthesis /Implementation” button. This entails the generation of a new task in a centralized queue that can be managed by a variable number of distributed systems responsible for the synthesis and implementation of each task. Once the student finishes with the coding and wants to proceed to the synthesis and implementation of the designed circuit, you must click on the “Synthesis / Implementation” button. This entails the generation of a new task in a centralized queue that can be managed by a variable number of distributed systems responsible for the synthesis and implementation of each task. The process responsible for the treatment of tasks is implemented in the form of a docker, allowing to alter the number of concurrent services based on the demand of users at each moment.

During the synthesis and implementation of a system, the console shows in real time the output of the system that is in charge of the process, being able to access the generated log files and observe the resulting errors and warnings (fig 5).

Once the bitstream is correctly generated, the

**Figure 5. Console output during synthesis/implementation process**



“upload into device” button is enabled in the laboratory to perform the last stages of the workflow. Then the student can choose the instance of experimentation in which to carry out the programming of the FPGA among all those that are free at that moment. In case no instance is available, the Remote Laboratory Management System (RLMS) WebLab Deusto provides a FIFO queue that is responsible for managing student demand

Finally, one of the available instances is selected and the proper FPGA device is programmed. The student has a realtime image of the development system where he can observe the evolution of the system and check the evolution of the following output peripherals:

- 4 multiplexed 7 segment displays
- 16 LED diodes
- 1 DC motor
- 1 servomotor
- 1 stepper motor

In addition, the laboratory provides 17 virtual switches and 5 pushbuttons that generate the consequent stimulus to the device. Finally, an UART terminal facilitates the debugging of the system (Figure 6).

**Figure 6. Debugging view of the WebLab-Deusto FPGA Remote Laboratory**



The connection to this lab is managed by a queue system. The user can use the programming environment with no time limit. However, because the experimentation is in real time over real boards, students have 2 minutes to check the operation of

their programs on one of the 10 real cards available to them. The average waiting time to access these cards is between 1 and 2 minutes.

## 2. TYPE OF EXPERIENCE

We have experience using remote labs for teaching engineering topics for more than 15 years. All the remote labs developed by WebLab-Deusto team are designed under the perspective of being a learning/teaching tool. This means that, although at the origin of each lab it is necessary a research work, we don't use it with students until we consider that the lab is enough tested and it runs properly.

Once the lab is tested, we move on to use it with students. In general, we consider the remote laboratories as a complement to the hands-on or traditional laboratories. Its use arises from the need to offer

students of the Faculty of Engineering an additional tool to continue their laboratory practices, since 90% of our subjects have practical content in the laboratory. In this context, where we include the need to work with small groups of students, is whe-

re remote laboratories offer a number of facilities or advantages:

- 24/7 availability. This means that our labs are always accessible through Internet. This characteristic gives the students the opportunity to connect anytime, not like in hands-on labs where the access to the lab is restricted to certain hours.
- Our remote labs are multiplatform and do not require any special software. This means that only a device (laptop, computer, mobile, tablet, etc) with internet connection is needed to interact with our labs. The web browser is the only software that user has to run. And it does not matter if it is iOS, Windows, UNIX, Android or other operative system.
- Once the remote lab is stable and operates properly, its maintenance is easier and cheaper than a traditional lab, where several workbenches have to be set up and revised for each lab session. As an example, with an instance of VISIR remote lab, we provide access to more than 300 students from Deusto per year (we have not consider students from other institutions).

Then, our best practices that we introduce in this work describe our experience using VISIR and WebLab-Deusto FPGA remote labs as support for tea-

ching basic analog electronics and digital electronics. It is true that COVID-19 pandemic has been a litmus test for checking the performance of our remote laboratories, as they have gone from being a complement to traditional laboratories, to being the only available tool to continue teaching from home. Based on our previous experience, we have not had to make additional developments or add new functions to the labs, compared to what we had been doing in past courses, although we have added more hours of use of the remote labs from the students' point of view.

## 3. CONTEXT IN WHICH IT WAS CARRIED OUT

Although during the pandemic the use of VISIR and WebLab-Deusto FPGA remote labs had been intensive, the way in which we have been using are close similar to the previous years. VISIR remote lab has been used in Electronics, a first-year basic subject where students are introduced to the key concepts of analog electronics. WebLab-Deusto FPGA remote lab has been used in Logical Programmable Devices subject (a second-year subject), where students learn the main concepts of these systems and how to program them.

During the following subsections, we describe how we have use both laboratories to work with our stu-

dents specific concepts in both subjects.

### 3.1 LEARNING OHM'S AND KIRCHHOFF'S LAWS WITH VISIR REMOTE LAB

A remote lab can be used at the classroom as a classical hands-on lab. With VISIR a student can perform experiments for demonstrating a physical law like Ohm's Law, but also it can be used for discovering the law under an inquiry approach. In the first strategy, teacher has a central position because he explains the law and organizes the experiment, but using an inquiry approach. But a remote lab as VISIR offers the teacher a new opportunity: he can use the VISIR in the classroom with the students, so the teacher and the students can interact among them during a session using the VISIR as a central element. The VISIR also fosters the collaborative work. VISIR has proved to have a positive effect in the students' learning process [5][6].

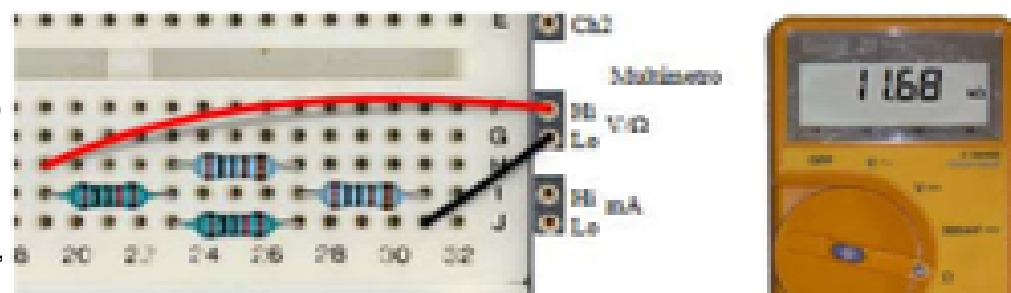
In this scenario the VISIR offers the students a basic "box" with four resistors: 2 x 1kΩ resistors and 2 x 10 kΩ. With four resistors the student can create all the possible connections and circuits. Then, the student is not restricted to use only some connections recommended by the teacher. Our approach

is to leave the student work without restrictions or impositions.

With these materials, the student can create any circuit with these four resistors and measure the equivalent resistance with the multimeter (Figure 7). During this session, the teacher starts showing the student how to use the multimeter and how to use the breadboard.

Again we have two strategies: teacher explains the mathematical model of the parallel-series connection or the student discovers (guided by the teacher) this mathematical model. After the session the students has to complete a test.

**Figure 7. Measuring equivalent resistance with the multimeter at VISIR**

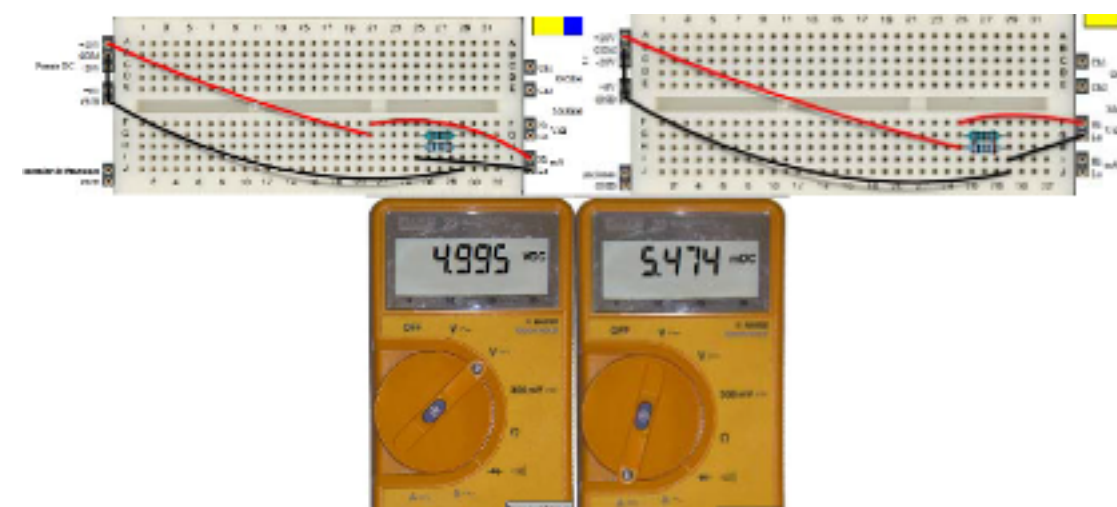


An additional experiment is to measure the resistance of the multimeter. Ideally, it is infinite, but this is not the reality. In this case the expected value was 11,91 kΩ, but the obtained real value is 11,68 kΩ, so we can calculate the resistance of the multimeter. Reader has also to remember that in VISIR we are working with real resistors, which have also

a tolerance.

During the session where students are introduced about Ohm's and Kirchhoff's laws, teacher starts explaining how a single resistor can be powered using the power supply at VISIR, and how to measure the voltage dropped at the resistor and the current flowing through it. Then, students will add new resistors in parallel and in series to measure the voltages at all the nodes of the circuit and currents in all the branches. So with this "simple" exercise, students learn: a) how the multimeter has to be connected in the circuit to measure voltage (in parallel) and to measure current (in serial), and b) the ratio between voltage, current and resistor as a practical application of both laws.

**Figure 8. Measuring voltage and current in a parallel circuit**



At the Figure 8, the circuit is powered with 5 V and the circuit is a parallel connection of two resistors

1 kΩ and 10 kΩ. Theoretically the voltage must 5 V and the current must be 5.5mA, but these are not the values obtained in VISIR because they are real values.

Again we can measure the error introduced by the multimeter (and the breadboard, etc.) in the measurement, and we can compare if this new value is similar to the previous obtained

### 3.2. LEARNING DIGITAL SYSTEMS WITH WEBLAB-DEUSTO FPGA REMOTE LAB

The WebLab-Deusto FPGA described at Section 1.2 is also a good example of how a remote lab can be used in the classroom.

The subject "Programmable Logic" is part of the sixth semester of the Industrial Electronics Degree at the University of Deusto. Its main objective is to program FPGA in VHDL in a low level. At the Faculty, there is an equipped laboratory

with different workbenches: XILINX Basys development board, Vivado software, oscilloscope, power

source, etc. But during the COVID the students could not access to the lab and they only used the WebLab-Deusto FPGA.

The subject is based in a PBL (Project Based Learning) approach. During first nine weeks the students afford basic modules: 7-seg decoder, counter, clock, Finite State Machine (FSM) or filtering input signals, PWM control, etc., and then the students develop a project in group. The basic project is a simple aggregation of the previous designed modules. Last year the basic project consisted on implementing a clock with an alarm that controls a DC motor with a PWM signal, and the position of the servo was controlled by the time. Different switches and buttons were needed for selecting the different modes of the clock.

The first module was to decode a BCD digit into a 7-seg. The basic process of the code is as follows:

```
process(bcd, bi)
begin
  if bi='1' then
    seven_seg<="1111111";
  else
    case bcd is
      when "0000" => seven_seg<="0000001";
      when "0001" => seven_seg<="1001111";
      when "0010" => seven_seg<="0010010";
      when "0011" => seven_seg<="0000110";
```

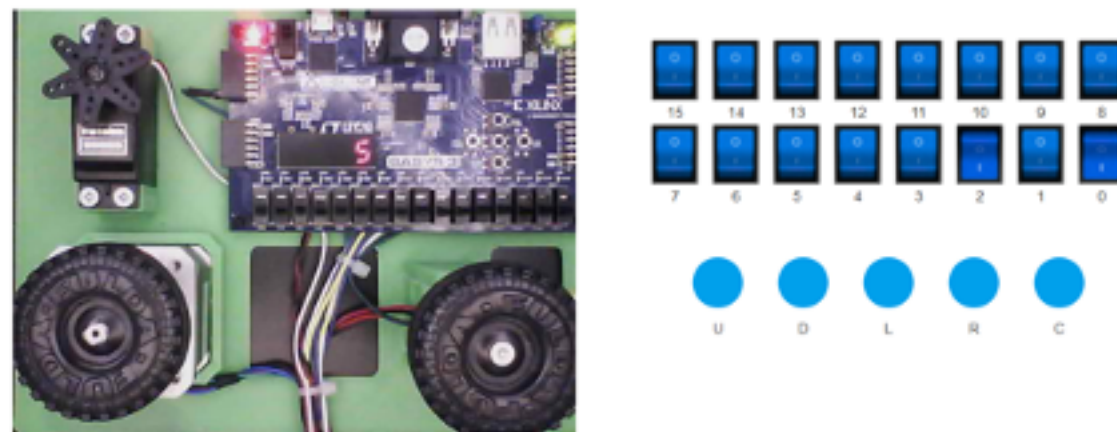
```
when "0100" => seven_seg<="1001100";
when "0101" => seven_seg<="0100100";
when "0110" => seven_seg<="1100000";
when "0111" => seven_seg<="0001111";
when "1000" => seven_seg<="0000000";
when "1001" => seven_seg<="0001100";
when others => seven_seg<="0110000";
```

```
end case;
end if;
end process;
```

This code can be copy/paste in the WebLab-Deusto and then the student, after the Synthesis-Implementation-Bitstream process, can test the program using the following interface. At Figure 9 the input is 0101 at the switches and the output is displayed at the seven seg.

During the 2019-2020 course, 19 students were en-

**Figure 9. Example of WebLab-Deusto FPGA remote lab**

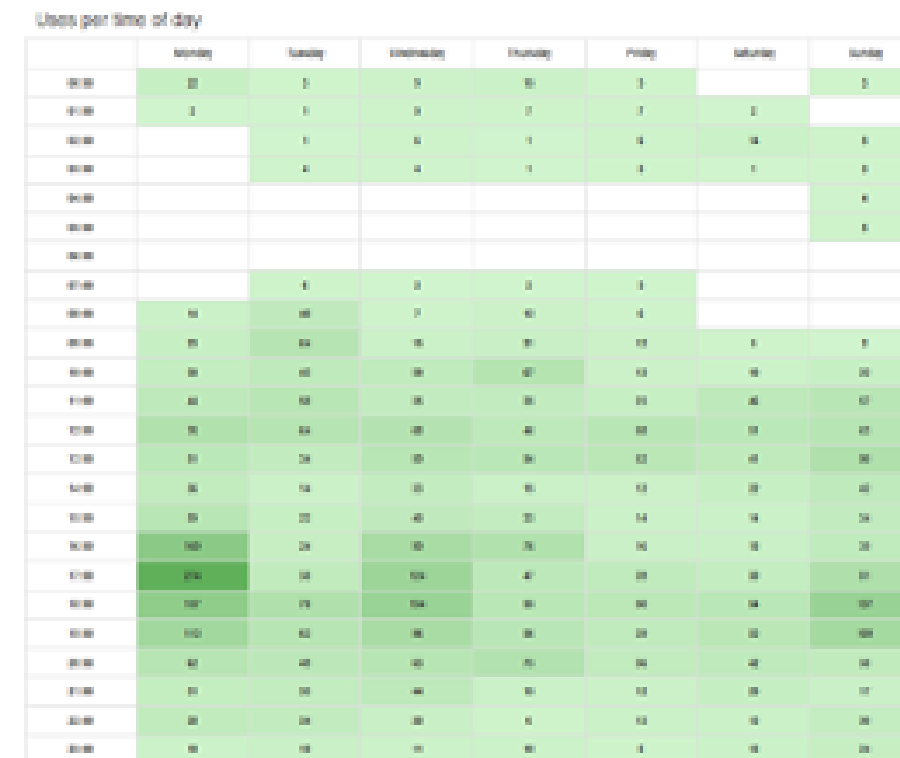


rolled in “Programmable Logic”. These students accessed the WebLab-Deusto 5132 times, one student accessed 558 times and other only 93 times. The students only could access the remote lab because they could not access the faculty building. All the projects were developed in the WebLab-Deusto FPGA Remote Lab. Figure 10 shows the accesses attending to the date and hour.

All this information can be accessed from the dashboard of the remote lab. Using this dashboard we can see if a student is accessing and working with the remote lab. Even we can see the program written by him/her and downloaded into the FPGA, and then we can evaluate his/her work.

At the end, only one student did not pass the subject and the developed projects had different extension and complexity. The most complex project had close to 3000 VHDL lines, that is, the WebLab-Deusto FPGA allows the teacher to face

**Figure 10. Uses of WebLab-Deusto FPGA remote lab**



simple examples but also complex projects. For example one group of students implemented and test an UART interface, which is a complex FSM.

To sum up, the use of a remote lab like WebLab-Deusto FPGA allows the teacher and the students to teach and learn FPGA/VHDL without restrictions. Finally it should be remarked that as the remote lab is the same for different teachers/students/faculties, then all the produced didactical material (examples, theory...) could be shared and improved by the network of users.



## 4. OBJECTIVES AND METHODOLOGY

Practical exercises and experiments are fundamental in any technical discipline either in educational or investigation areas. Using the words of Ingvar Gustavsson (inspired in Max Planck):

*“Experimenting could be compared to a conversation with nature. The experimenter asks and nature answers. The tricky thing is formulating a useful question and above all interpreting the answer. The only way to learn the language of nature is performing many experiments in laboratories that can be hands-on or remote.”*

To achieve that, the easiest way to implement these activities is to go to hands-on laboratories, which offer real hardware, instruments and experiments. However, sometimes this is not possible, like during the pandemic, or many of these experiments require special and expensive instruments or the number of equipment units is insufficient for all the potential users due to their size or maintenance requirements. Alternatively, virtual laboratories, simulators and remote laboratories can play a key role in teaching specific areas of technical courses such as analog or digital electronics, and other disciplines such as radio communications or automatism and instru-

mentation control. While virtual laboratories can be used in certain experimental activities where simulation may be enough, they are not as effective as the laboratories in which users can play and interact with real equipment, according to the learning-by-touching or active learning approaches. Moreover, according to the Accreditation Board for Engineering and Technology (ABET), practical exercises should help students achieve a set of competences that virtual labs cannot satisfy [10].

Then, within the context in which we have employed the remote laboratories (and during the pandemic they were our only resource), the objectives were:

1. To offer students tools as close as possible to those available in the traditional laboratory
2. To enable them to carry out the same actions and achieve the same learning outcomes
3. That they were simple and intuitive to use
4. To allow different degrees or levels of learning, starting from simple exercises and being able to reach higher levels of complexity.

The way in which remote labs are used in class does not differ from the way a hands-on session is addressed. In both subjects, students are given the statement of the practices or exercises they have to complete. Along with this information, the teacher

performs a number of previous examples, both of use of the remote laboratory and of circuit execution (VISIR) or programs (WebLab-Deusto FPGA).

For both laboratories, short explanatory videos are made available to students that they can view when they need to. Students have to complete the hands-on exercises and send the results to the teacher. In many cases the results are presented and discussed in a Word document, or the teacher asks them to record a short video in which they explain how they carry out the practice.

## 5. RESULTS OBTAINED AND LESSONS LEARNED

As indicated throughout this article, we have expe-

|   |    |   | Average |
|---|----|---|---------|
| 1 | US | The remote lab is easy to use   | 6,2     |
| 2 | IM | Using the remote lab feels like using a real lab.                           | 4,6     |
| 3 | IM | My interactions with the remote lab seem real.                              | 5,1     |
| 4 | UT | The remote lab helps me learn.  | 6,4     |
| 5 | IM | When working on the remote lab I concentrate on the assigned tasks.         | 6,2     |
| 6 | US | I can predict the result of using each element in the remote lab interface. | 5,4     |

rieties are a valid alternative for teaching engineering; they are sufficiently robust to support thousands of connections made by hundreds of users; they allow the same learning results to be obtained as those expected from face-to-face sessions.

Also for us it is important users experience. As an example, next table shows the result of the satisfaction questionnaire that we share with our students. It is based on a seven-point Likert scale (1-strongly disagree to 7-strongly agree) and it give us qualitative information about users perception about the usability, utility, immersion and satisfaction using our remote labs. This table presents the average value obtained from the surveys answered by the users of the WebLab-Deusto FPGA remote laboratory.

|   |    |  |     |
|---|----|--|-----|
| 7 | US | The remote lab layout is sufficiently apparent so that help is not needed to use it. | 6,1 |
| 8 | UT | The remote lab meets my requirements.  | 5,9 |
| 9 | UT | The remote lab will help me pass the course.   | 6,4 |

Questions 1, 6 and 7 are focused in usability (US: how much easy is to use the remote lab) and two of them are higher than 6, so in general terms this remote lab is easy to use from the point of view of the students.

Questions 4, 8 and 9 are focused in utility (UT: how much useful is to use the remote lab) and all of them are higher than 6 or close to it, so this remote lab is a useful tool from the point of view of the students. Question 9 clearly remarks that the remote lab is needed to be success in the course.

Questions 2, 3 and 5 are focused in immersion (IM: how much immersed is the student when using the remote lab). The values are dispersed but always they are higher than 4. Attending to [12] “Immersion is a psychological state characterized by perceiving oneself to be enveloped by, included in, and interacting with an environment that provides a continuous stream of stimuli and experiences”, so looking at the question 2 we can see that the value is not low, but comparing this value with the rest of the values, it

can be said that the students do not feel so much that the remote lab is real, even knowing that it is real. Immersion is an interesting re-

search field in remote experimentation. An important aspect that we want to highlight is technical robustness of the remote labs that we use. This is thanks to the support of LabsLand (<https://labsland.com/>), spin-off of the WebLab-Deusto research group and responsible for maintaining, managing and producing remote and reliable laboratories for the entire educational community.

## 6. OPPORTUNITIES FOR IMPROVEMENT

VISIR and WebLab-Deusto FPGA remote labs are part of the available portfolio of remote labs traded by LabsLand, the spin-off of the WebLab-Deusto research group of the University of Deusto.

The massive use of both remote labs has been possible because both are stable, effective and reliable remote labs for more than 10 years in case of VISIR and 2 years in case in WebLab-Deusto FPGA. This makes possible to offer this remote lab professionally and as a final product to institutions and users

interested in having a VISIR or WebLab-Deusto FPGA remote lab instance or having access to some of the instances currently available on the LabsLand portal [11].

It is important to note that thanks to the repository of resources (remote labs) offered by LabsLand, if teachers around the world have access to these same tools, both teaching materials and learning scenarios are the same. This confluence offers us a unique scenario in which to share experiences and knowledge in common way. In fact, many of the circuits available at VISIR or the examples implemented on WebLab-Deusto FPGA are contributions from professors from institutions other than the University of Deusto who are already users of these remote laboratories.

From these lines, the authors want to offer to all those teachers who want to know about remote labs, to teach them how to use them and who see the potential they can offer in their subjects.

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## Co-teaching in Higher Education: Best Practices

### ABSTRACT

Co-teaching is not a frequent practice in the Spanish university system. It not only requires preplanning, communicating weekly and fixing specific roles among the co-teachers, but it also depends upon the active participation and support of other key players involved, such as students or heads of department. Although difficult to implement, it is a practice that contributes to professional development among teachers, who can benefit from the collaboration and develop innovative methodologies. It also makes the teaching-learning process more efficient, as it helps avoid redundancies in syllabus and offers a wider view to students thanks to the exposure to a variety of teaching styles. Taking up the challenge of co-teaching at a university level, various lecturers in the School of Humanities and Social Sciences at Universidad Pontificia Comillas (Madrid, Spain) have successfully used different co-teaching models in their classes in a variety of degrees. This paper provides an analysis of their experience and suggestions of best practices.

### THE INITIATIVE

The co-teaching practices described were carried out at Universidad Pontificia Comillas, in the School of Humanities and Social Sciences, in the degrees of Infant Education, Primary Education and Translation and Interpreting. The participants were lecturers involved in partnerships, often between full-time lecturers and professionals in the field, who combined teaching with their profession.

### OBJECTIVES

- ☉ **Reduce redundancies** in course contents
- ☉ **Provide a wider vision** of the contents to students
- ☉ **Enrich the lecturer's experience**

### RESULTS

- ☑ To reap the full benefits of co-teaching it is paramount an effective course planning and coordination between the co-teachers
- ☑ Bridging the sessions or contents taught by each co-teacher was found to be an especially effective strategy
- ☑ Co-teachers found that having two instructors explain contents and clarify questions often resulted in a slower pace and not being able to achieve the teaching objectives of the session

### OPPORTUNITIES FOR IMPROVEMENT

- 📖 Ensuring that lecturers have an opportunity to meet before, during and after the course
- 📖 Providing positive reinforcement of the many advantages of co-teaching
- 📖 Clarifying the objectives of each co-teaching partnership
- 📖 In the case of online delivery providing extensive training not only in the use of online tools but also in methodological changes that need to be made

### LESSONS LEARNED

Prctices that were found to be useful:

- 📖 Being especially transparent about the evaluation process. Providing advance notice about the evaluation criteria and tools
- 📖 Co-correcting the most important tasks. To save time and ensure fairness, co-teachers may wish to grade different sections or aspects of the exam or assignment.
- 📖 Joint revision whenever possible, especially sensitive cases
- 📖 When providing feedback as part of formative assessment, lecturers should agree on how much detail they will provide students.

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# Co-teaching in Higher Education: Best Practices

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### ABSTRACT

Co-teaching is not a frequent practice in the Spanish university system. It not only requires preplanning, communicating weekly and fixing specific roles among the co-teachers, but it also depends upon the active participation and support of other key players involved, such as students or heads of department. Although difficult to implement, it is a practice that contributes to professional development among teachers, who can benefit from the collaboration and develop innovative methodologies. It also makes the teaching-learning process more efficient, as it helps avoid redundancies in syllabus and offers a wider view to students thanks to the exposure to a variety of teaching styles. Taking up the challenge of co-teaching at a university level, various lecturers in the School of Humanities and Social Sciences at Universidad Pontificia Comillas (Madrid, Spain) have successfully used different co-teaching models in their classes in a variety of degrees. This paper provides an analysis of their experience and suggestions of best practices.

# 1. DESCRIPTION

University lecturers at Universidad Pontificia Comillas (Madrid, Spain) have ventured into co-teaching practices in an attempt to improve both student experience, in the form of the reduction of redundancy in contents and exposure to multiple perspectives, and teacher experience, through effective collaboration and professional development. This endeavor has been undertaken in the framework of a university-sponsored innovation project in which several lecturers took part and formed partnerships to teach courses within the degrees of Infant Education, Primary Education and Translation and Interpreting. Previous research of collaborative practices around the world suggested that the effort employed would offer a substantial return on investment.

According to the OECD, collaboration among teachers contributes to professional development as they learn from each other and consequently improve their own practices. It can also lead to more innovative methodologies,

benefitting students as a result (OECD, 2020). Collaboration has also been defined as one of the key 21st century competences to be developed in educational institutions (Voogt & Roblin, 2012). Co-teaching is the result of close collaboration between two or more teachers, who share responsibilities for a given group of students and subject(s). This partnership can take many forms, as detailed in Table 1, though the experience hereinafter described involves Models 2 and 4. Cook and Friend (1995) named these two models Team teaching and Station teaching, respectively, terms which will also be used in this paper.

Co-teaching has recently been implemented at the university level, particularly in initial teacher training degrees, resulting in partnerships between

teacher trainees and in-service teachers (Montgomery & Akerson, 2019; Murphy et al., 2015; Pettit, 2017; Simons et al., 2020; Turan & Bayar, 2017) or between university lecturers as a model of collaboration (Bacharach, Heck & Dahlberg, 2008; Ferguson & Wilson, 2011; Graziano & Navarrete, 2012; Ricci & Fingon, 2018). Studies have shown that collaborative competences, essential for future teachers, are developed while witnessing and/or taking part in an effective co-teaching relationship (Montgomery & Akerson, 2019; Simons et al., 2020). In recent years, several studies published about experiences of co-teaching in other fields of study have also suggested positive outcomes (Blanchard, 2012; Carbone et al., 2017; Lasagabaster et al., 2019; Lock et al., 2016; Morelock et al., 2017).

Research suggests that co-teaching provides several benefits to students, including a greater variety of instruction and pedagogical activities (Ferguson & Wilson, 2011; Graziano & Navarrete, 2012), raised awareness of multiple perspectives that surround an issue and increased critical thinking (Bacharach, Heck & Dahlberg, 2008; Blanchard, 2012; Ferguson & Wilson, 2011), and more diverse feedback from instructors (Ferguson & Wilson, 2011; Lasagabaster et al., 2019). When instructors are simultaneously present in the classroom, as in team teaching (Model 2), students additionally benefit from differentiation through increased individual attention and

“*Research suggests that co-teaching provides several benefits to students, including a greater variety of instruction and pedagogical activities, raised awareness of multiple perspectives that surround an issue and increased critical thinking, and more diverse feedback from instructors*”

natural scaffolding techniques such as co-generative dialogue and clarifying questions (Graziano & Navarrete, 2012; Murphy & Martin, 2015).

Co-teaching as a practice is rare in the context of Spain (OECD, 2020), despite the push by educational experts to adopt the technique due to its many proven benefits (see Lasagabaster et al., 2019). This might be due to the difficulties of implementing co-teaching and the important considerations that must be made before undertaking the challenge. Instructors will need to demonstrate trust, mutual respect, and accountability in a co-teaching partnership (Graziano & Navarrete, 2012). They will also need to invest a significant amount of time and training to create an effective working relationship (Graziano & Navarrete, 2012; Ricci & Fingon, 2017). Finally, classroom protocol and processes should be clearly defined to avoid potential confusion and mistrust among students (Bacharach, Heck, Dahlberg, 2008; Ferguson & Wilson, 2011; Graziano

**Table 1**

*Models of instruction*

| Model | Number of student groups | Role of Teacher 1                    | Role of Teacher 2                             |
|-------|--------------------------|--------------------------------------|---|
| 1     | 1                        | Leads the class                      | Assists individuals or small groups as needed |
| 2     | 1                        | Teach content simultaneously         |   |
| 3     | 1                        | Teach content                        | Assess students                               |
| 4     | 2                        | Teach content to separate groups     |   |
| 5     | 2                        | Pre-teach                            | Teach alternative information                 |
| 6     | 2                        | Re-teach                             | Teach alternative information                 |
| 7     | 3+                       | Monitor and teach the various groups |   |

*Adapted from Honigsfeld and Dove (2010)*

& Navarrete, 2012). However, these drawbacks are overwhelmingly offset by the potential benefits, suggesting that co-teaching is worth the effort.

## 2. TYPE AND CONTEXT OF EXPERIENCE

The co-teaching practices described were carried out at Universidad Pontificia Comillas, located in Madrid, Spain. The university, administered by the Society of Jesus, defines itself on its website as a Catholic university aligning its mission with the “Magna Charta Universitatum”, signed in Bologna in 1988: “... an academic community that, in a rigorous and critical manner, contributes to the protection and development of human dignity and cultural heritage through research, teaching and providing a diverse range of services to local, national and international communities” (Universidad Pontificia Comillas, n.d.-a). Universidad Pontificia Comillas offers undergraduate, postgraduate and PhD programs to over 14,000 national and almost 3,000 international students (Universidad Pontificia Comillas, n.d.-b).

The innovation project on co-teaching was carried out in the School of Humanities and Social Sciences, in the degrees of Infant Education, Primary Educa-

tion and Translation and Interpreting. The participants were lecturers involved in partnerships, often between full-time lecturers and professionals in the field, who combined teaching with their profession; they belong to three different departments: (1) Translation, Interpreting and Multilingual Communication, (2) Education, Research Methods and Innovation and (3) Modern Languages Institute. The initial decision regarding the instructor pairs and the courses assigned was generally made by the head of studies or head of department, not by the individual lecturers. All experiences involved English either as a foreign language or as the language of instruction, or one of the languages of instruction<sup>1</sup>.

The experience arose from two parallel and independent initiatives by small groups of instructors experimenting with co-teaching. One partnership was created among three lecturers in the Education degrees, while another was undertaken by two lecturers in the Translation and Interpreting degrees. When these lecturers learned about their colleagues’ efforts in the other degrees, they decided to form an innovation group and apply for financial assistance from the university to fund research into the initiative. The institution itself promotes “teamwork, genuine collaboration and shared responsibility” as

desirable qualities in its students and staff (Universidad Pontificia Comillas, n.d.-a) and provides two main opportunities to experience these: (1) it programs a series of classes to be shared by two or more instructors and (2) it provides annual teacher training sessions for sharing, networking, and discovering other initiatives. However, coordination between instructors is difficult due to diverse schedules – especially if the lecturers involved are professionals who combine teaching with another profession – and there is a general reluctance at universities in Spain to open the classroom to other teachers. In fact, Dr. Ana Halbach, leading Education researcher in the Spanish context, started her round table contribution at the 2016 IATEFL conference by stating:

“*I have to start by saying that I come from a context that is characterized by closed doors. There is no observation going on in Spain. Teachers go into their classrooms, close the door and that’s it. [...] What happens in a context like this is that teaching is very, very lonely (Halbach, 2016).*”

The decision of the project team members to open the door to their classrooms to their co-teachers was the result of this fundamental loneliness lea-

ding to a desire to share, to improve together and provide a model for their students in class on how collaboration can improve results. After the two initial, separate experiences, the project group was formed, and co-teaching partnerships were established in six different courses (cf. Table 2).

Most partnerships followed the Model 4 approach, i.e., the same group was taught separately by two alternating teachers (also known as station teaching). In some cases (Groups 3, 4 and 6), professors alternated session by session; in other cases (Groups 5 and 7), teachers alternated in six-week intervals. Only two groups (1 and 2) were based on team teaching (Model 2), with both teachers present in the classroom simultaneously. Due to the changes required by the COVID-19 pandemic, all courses scheduled for the January – May period transitioned from on-campus classes to 100% online delivery in March, with less than a week’s time to adapt content, assessment, and delivery. Partnerships successfully maintained the co-teaching model of their choice even during the lockdown, so the teaching dynamics did not change significantly when classes were taught online. The courses that took place from September to December were taught with a bimodal approach, i.e., alternating on campus and online classes from week to week.

1: More recently, the co-teaching model has been extended to the double degree of Psychology and Criminology, from the same School of Humanities and Social Sciences, and in a course that does not involve English as a foreign language, particularly in the course of Writing Techniques (or, in Spanish, Técnicas de Expresión Escrita). Data on the experience has not yet been analysed and, therefore, has not been included in this article.

**Table 2***Co-teaching partnerships*

| Group | Lecturers | Model of co-teaching | Degree program               | Course  | Timing         |
|-------|-----------|----------------------|------------------------------|---|----------------|
| 1     | A and C   | Model 2              | Infant Education             | Content Language Integrated Learning (CLIL) <sup>2</sup>                | Jan-May, 2020  |
| 2     | B and C   | Model 2              | Primary education            | Content Language Integrated Learning (CLIL)                             | Jan-May, 2020  |
| 3     | D and E   | Model 4              | Translation and Interpreting | Strategies and techniques for written communication <sup>3</sup>        | Jan-May, 2020  |
| 4     | D and E   | Model 4              | Translation and Interpreting | Strategies and techniques for oral communication <sup>4</sup>           | Jan-May, 2020  |
| 5     | A and B   | Model 4              | Primary Education            | Teaching English as a Foreign Language 2                                | Sept-Dec, 2020 |
| 6     | D and F   | Model 4              | Translation and Interpreting | History and Literature of the English-Speaking countries B <sup>5</sup> | Sept-Dec, 2020 |
| 7     | B and G   | Model 4              | Infant education             | Teaching English as a Foreign Language 2                                | Sept-Dec, 2020 |

### 3. OBJECTIVES AND METHODOLOGY

This initiative was undertaken in an effort to make the teaching-learning process more efficient in the different degrees. The objectives of the current study can be summarized in the following three statements: (1) reduce redundancies in course contents, (2) provide a wider vision of the contents to students, and (3) enrich the lecturer's experience.

2: CLIL is the predominant form of bilingual education practiced in Spain, offering a dual focus on both content and language acquisition in classrooms with a vehicular language that is not the student's native language.

3: Original Spanish course name: Técnicas y estrategias de comunicación escrita

4: Original Spanish course name: Técnicas y estrategias de comunicación oral

5: Original Spanish course name: Historia y Literatura B

In some degrees there are courses whose contents slightly overlap but which are treated as if they were new in each course. Relative to the first objective, it was assumed that, if lecturers worked more closely together, they would be able to reduce this overlap and build on what had been learned in other courses. Second, once these overlaps had been

reduced, there would be an opportunity to delve deeper into the contents of each course, more effectively analyzing them from all sides. Indeed, the fact that more than one lecturer was involved would present students with multiple perspectives on the same contents, which they would be forced to compare and contrast and therefore draw conclusions, thus encouraging critical thinking. Finally, it was thought that close collaboration among lec-

turers would bring about professional development through negotiation of the syllabus and exposure to different methodologies. This collaboration would, in turn, improve the experience of the students creating an opportunity for increased individual attention, more varied pedagogical intervention, and therefore, greater differentiation.

Each lecturer who took part in one of the co-teaching partnerships kept a reflection diary in which they wrote their impressions each week. They were asked to write about lesson planning and organization, teaching strategies and lesson delivery, teacher coordination and/or teacher interaction in class (depending on the model employed), general feedback, and future changes to consider. The authors read through the diaries and collaborated to create a list of best practices according to the areas of methodology, student experience, instructor experience, instructor coordination, professional development and concerns and feelings. What follows is a description of this systematic analysis.

### 4. RESULTS OBTAINED AND LESSONS LEARNED

This section summarizes the main results that were obtained from the analysis of the contents of the reflection journals. The authors will discuss the lessons learned about co-teaching in general, while

also offering specific suggestions relevant to **station teaching** (Model 4) and **team teaching** (Model 2). Throughout, specific points will be made regarding the adaptation of traditional on-site instruction to an **online scenario**, following the outbreak of the COVID-19 pandemic.

#### 4.1. TEACHER COORDINATION AND PLANNING

To reap the full benefits of co-teaching, effective course planning and coordination between the co-teachers is paramount.

##### 4.1.1. Pre- and post- course planning

It was found that preplanning is essential in order to avoid content overlap between instructors, as well as ensuring that the different units and tasks are divided in a logical way. Lecturers should meet well before the start of classes to plan the calendar and revise the contents, materials and assignments based on their observations during the previous year, as well as any feedback collected from students. It is also recommended that they meet shortly after the end of classes, in order to collect suggestions of improvement. In both **station** and **team** teaching, a specific suggestion is to plan the course so that one co-teacher can substitute for the other, that is, being able to teach contents designed by the other co-teacher.

#### 4.1.2. In-course coordination

Weekly communication is a special challenge in **station teaching**, especially when students meet the two lecturers in the same week. In the case of Group 6, for example, several challenges regarding in-course coordination are mentioned, including: teaching the same activity twice (“The only difficulty that arose with respect to sharing the class, was that Lecturer D had already used one of the teaching materials that I intended to use at the end of the class: a 10-minute video about the origins of the English language. This meant that I ran out of material 20 minutes before the end of class” [Lecturer F, Group 6]), lack of coordination as to who activates the homework (“During the weekend following my first class, I forgot to update the homework task on Moodle for my Friday class the following week. Lecturer D kindly offered to reactivate this homework task from the previous year, which she did” [Lecturer F, Group 6]) in the virtual campus, finishing content early or not getting through all the material, deciding whether online classes needed to be recorded, etc. Lecturers should communicate continuously about what has been covered, any pending contents or tasks, as well as areas of difficulty for students.

In the case of **team teaching**, co-teachers should be sure to plan the specific roles that each will take during each session or part thereof: leader, support, etc. If teaching an **online live seminar**, it will be impor-

tant to clarify beforehand technical questions such as who uploads or shares the materials and whether one of the two co-teachers will be responsible for answering student questions and comments in the chat window. It is also important to be aware that team teaching is made more difficult in an online environment (“It will be challenging to maintain a team teaching approach in online classes, as there is no visual contact. In order for the second teacher to intervene, she has to either interrupt the one speaking or say it in the chat. Therefore, there is a more obvious difference in teacher roles for the two teachers” [Lecturer A, Group 1]).

It is also highly advisable to involve the students actively in the process by asking them for specific feedback and suggestions of improvement at relevant moments in the semester. Exit tickets (physical or online) can be a great way to collect feedback.

To support the planning process, the following digital tools have been found to be especially useful:

- A shared online calendar.
- Shared online folders for course materials.
- Email and text messaging for weekly communication.
- Online student surveys.

#### Figure 1

Student feedback to co-teachers as mid-semester exit tickets



#### 4.2. IN-CLASS EXPERIENCE

In co-teaching settings, it is common that lecturers feel increased insecurity owing to a certain loss of control over the instructional process. In turn, students may fail to see continuity between the work of the two co-teachers, to the point of perceiving the course as two different, independent modules, or, even worse, being confused by possible overlaps of content presentation.

As regards station teaching, bridging the sessions or contents taught by each co-teacher was found to be an especially effective strategy. This will be done differently depending on the specific station teaching arrangement.

If instructors swap groups from one session to the next, or on a weekly basis, it is recommended to include a short (say, 5-minute) summary of the main content presented by other instructor in the previous session. Students tend to appreciate this kind of summary (“I give a short summary of the previous session at the beginning of class and have a feeling that students do appreciate this and miss it whenever it is not provided” [Lecturer D, Group 6]; “Students comment that they find it hard to build bridges from one session to the other and would appreciate a 5-minute summary from each teacher at the beginning of each session, looking back at the previous content and linking it to what’s to come” [Lecturer D, Group 6]).

In the case where instruction is divided into longer periods (for instance, the groups switch co-teacher mid-semester), the following strategies were found to be helpful:

- Co-teacher 2 may comment on students’ feedback on the first part of the course, taught by Co-teacher 1. To make these comments more focused, one of the questions answered on the



exit tickets could be, *What would you like from the second part of the course?*

- The introduction session to Block 2 could be planned to bridge the two blocks by explicitly reviewing the lessons learned in Block 1 as a way of activating students for the contents that will be taught in Block 2.

In all cases, lecturers should avoid content overflow into the other lecturer's classes. If this cannot be avoided, it is best to make sure the other instructor can teach that content. This point is clearly exemplified in the following quote of one of the lecturer's diaries:

*“However, in this week we continue a trend that started in the week before, which is carrying over content from one week to the other rather than finishing our units in each session. I feel that it is mostly me because I find managing the bimodal classroom difficult and my time management is not good. But the fact that Lecturer F sometimes has to cancel classes due to professional needs does not help much either. I think students find this confusing and definitely for next year I would very much like to design the classes in such a way as to ensure all content can be delivered in one session, with no overflow (Lecturer D, Group 6).”*

It is also very important to avoid going back and forth between one instructor's content and the other's. Students may interpret this in a negative way, either as a problem in coordination or of communication between lecturers.

In cases of **team teaching**, time management and redundancy in instructor explanations were two significant concerns. Co-teachers found that having two instructors explain contents and clarify questions often resulted in a slower pace and not being able to achieve the teaching objectives of the session (“Things tend to go slowly with two teachers explaining and clarifying, and sometimes I don't say something I would normally say so that we can move on” [Lecturer A, Group 1]). From a student perspective, as revealed in mid-semester exit tickets, team teaching can result in sessions that are too

“intense” and therefore “hard to follow”, especially when taught in a foreign language, which was the case in this innovation project. To address this potential caveat of team teaching, we recommend the following strategies:

- Carefully preplanning instructor roles, as suggested above.
- Making a conscious effort not to restate, or expand on, the other lecturer's initial explanation, unless this is explicitly requested by students. If so,

a good policy is to have Co-teacher 2 answer questions on content initially explained by Co-teacher 1, and vice-versa.

### 4.3. ASSESSMENT

So far, the feedback collected from students suggests that they generally welcome the variety in teaching styles brought by co-teaching. An Education student reported in her learning portfolio that “having different teachers for different parts of the subject was new, but also beneficial. We were able to learn from two different people at the same time, and that is nothing but enriching” (Custodio-Espinar et al., 2019).

At the same time, students are understandably sensitive to perceived differences or inconsistencies between the co-teachers' evaluation criteria. In a focus group interview with Education students, participants agreed that one of the problems with co-teaching is that teachers do not necessarily value the different parts of an assignment in the same way. Further, they reported that “when asking for clarification [on the assignment], there would be occasional contradictions in the explanations of the different teachers .... you didn't always see things the same way” (Custodio-Espinar et al., 2019). This problem has also been reflected in the lecturer diaries:

*“Concerning assessment, this week Lecturer F and I compared our assessment of one of the student presentations and noticed that he is far more meticulous than I am regarding two points: correctness of content (chronology, terminology) and documenting your sources/not reading from plagiarized material (Lecturer D, Group 6).”*

To ensure a fair assessment process, and reassure students before exams and when setting significant assignments, the following practices were found to be useful:

- Being especially transparent about the evaluation process. Providing advance notice about the evaluation criteria and tools (exam question types, rubrics, and checklists for assignments).
- Co-correcting the most important tasks. To save time and ensure fairness, co-teachers may wish to grade different sections or aspects of the exam or assignment.
- Joint revision whenever possible, especially sensitive cases (e.g., failing scores).
- When providing feedback as part of formative assessment (papers, presentations, etc.) lecturers should agree on (roughly) how much detail they will provide students.

#### 4.4 COMMUNICATION WITH STUDENTS OUTSIDE THE CLASSROOM

As in the case of assessment, lecturers should, whenever possible, convey a united front before the students. It is understandable that some students feel more inclined to contact one of the two co-teachers – for instance, because they know her from a previous course – regarding questions of assessment, materials, or asking for support when doing specific tasks. However, in order to ensure fairness and avoid misunderstandings with the students, and among the teaching team, it is advisable that co-teachers ensure transparency in their respective communication with the class. The following strategies were found helpful in this respect:

- Agreeing on the preferred single channel of communication, preferably supported by the university's digital campus (Moodle, in our case).
- Negotiating important decisions and criteria before confirming with the students.
- Copying each other in all academic communication with students, except for sensitive cases in which the students' initial message may require privacy.
- Signing messages to the whole group with both lecturers' names.
- Using the plural "we" to enhance both the stu-

dents' and the instructors' perception of the co-teachers as a team.

#### 4.5. PROFESSIONAL DEVELOPMENT

One of the sources of inspiration of this innovation project is the belief that co-teachers can improve their own individual teaching through the process of planning and delivering instruction with another colleague. For example, we have seen that co-teachers can learn more about digital resources from each other ("Instead of having to figure it out on our own, look through how-to videos or contact technical support, Lecturer B and I tend to ask if the other knows how to do something and we support each other" [Lecturer A, Group 5]). It has also become clear that methodology is often transferred when one co-teacher sees activities or presentation techniques planned by the other, and they use them in their other courses. To maximize this benefit, the following practices have proved valuable:

- Sharing materials in an online repository, preferably a cloud system such as Google Drive or MS OneDrive.
- In online scenarios, recording online classes. Having the sessions on video will facilitate processes of mutual observation and feedback.
- Sharing reflective diaries with the partner. This can provide many insights on methodology and

improve individual teaching strategies.

- In **station teaching**, it is highly recommended that co-teachers arrange to teach together in the same classroom once or twice throughout the semester. This may be particularly valuable in introduction and review sessions, or when students share the results of an especially significant project.
- In **team teaching**, transfer of methodology will take place almost spontaneously. Still, it is a good idea that there is enough variety in the roles taken on by each co-teacher in different moments of the class, unit, or semester: leader, assistant, etc.

#### 4.6. AFFECTIVE ASPECTS

Last, but certainly not least, attending to affective factors is critical to co-teaching being sustainable in the long run. In such a traditionally individualistic job as lecturing in higher education, implementing co-teaching can be not only organizationally, but also personally, challenging at different moments of the process. Some useful suggestions in this respect are:

- Using planning and review meetings to openly discuss feelings about how the co-teaching experience is going.
- Co-teaching relies on mutual respect among

partners. Lecturers should, whenever possible, demonstrate this respect in front of students. For instance, one co-teacher can refer to her colleague's expertise or special knowledge of a topic.

- Sharing reflective diaries with the co-teacher can help provide positive reinforcement between colleagues.
- In **team teaching**, the affective elements could be incorporated into a "dialogic" presentation style, with one co-teacher playing the role of interviewer, and the second one of expert on a specific topic or experience.
- In **station teaching**, if schedules permit, both instructors should coincide in the classroom at key moments, for example for initial introductions, final review or student feedback sessions. This will demonstrate a united front, mutual respect and close coordination.
- Co-teachers should exercise a high degree of patience and flexibility. Co-teaching can have a steep learning curve in early stages of the process, and many adjustments will need time to be made.

### 5. CONCLUSIONS

The co-teaching project is ongoing and so far, extensive data has only been collected on the third of

the objectives mentioned in Section 3: (3) Enriching the lecturer's experience, by means of the teacher diaries. Regarding this objective, feedback from instructors has been uniformly enthusiastic regarding professional development, positive reinforcement of self-image and improved student learning experience. Progress in the remaining two objectives, (1) Reduce redundancies in course contents and (2) Provide a wider vision of the contents to students, has been perceived from the lecturer's point of view, but it remains to be seen whether students' perceptions coincide. For this purpose, individual and focus group interviews will be carried out. Furthermore, lessons taught by all partnerships have been observed by project group members, and data collected by means of an observation template. This data will be analyzed to ascertain whether lecturer and student perceptions of classroom interactions are further substantiated by independent class observations. Once the reflection diaries, interviews and observation notes have been triangulated, results can be contrasted and will be more reliable. In line with the results found thus far, the authors offer a few recommendations directed at institutional administration:

- **Ensuring that lecturers have an opportunity to meet** before, during and after their course. This could be achieved by checking schedule compatibilities, or by offering training sessions designed to provide time and space for colla-

boration.

- **Providing positive reinforcement** of the many advantages of co-teaching through direct communication by heads of department, training opportunities or incentives.
- **Clarifying the objectives of each co-teaching partnership**, such as: language partnerships (each lecturer provides expertise in one language/culture), or educator-professional partnerships (one instructor contributes professional experience in the field, for example as a translator, interpreter, primary school teacher; while the other contributes extensive teaching experience and availability to deal with administrative issues).
- In the case of **online delivery**, providing extensive training not only in the use of online tools but also in methodological changes that need to be made. Online experiences can be daunting for lecturers with little previous experiences and partnering with another instructor can be of great help.

In conclusion, for effective co-teaching to take place, all key players need to be on board: students, lecturers, heads of department, and the professional development department. Providing funding for teaching innovation projects can help lecturers coordinate and be a strong incentive to take risks, manage

change, put in the extra effort and the extra hours in order to make the teaching and learning experience more effective and more gratifying.

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## I-LEAD: Ignatian Leaders Engaging in Action and Discernment

### Opening meeting and formation spaces in COVID-19 times

#### ABSTRACT

The crisis caused by COVID-19 presented new challenges for the Jesuit educative formation field. Because of it, the I-Lead program (Ignatian Leaders Engaging in Action and Discernment) was created. An online program with no costs for 196 students from different Jesuit Society's High Education Institutions, based on Ignatian spirituality and Pedagogy.

I-Lead focuses on creating Ignatian leaders capable of critically interpret reality, compromise and act after a thorough and precise decision-making process considering the community and aiming at the greater good of our society. Furthermore, it is included the listening and deep dialogue about the students' different experiences as well as the use of practical tools (digital activism, artistic activism, procurement of funds, etc.), in order to make them aware of their part in the international community as global citizens with common processes.

#### THE INITIATIVE

I-Lead (Ignatian Leaders Engaging in Action and Discernment) is an online leadership program based on Ignatian Pedagogy and spirituality. It is planned for students enrolled in any Jesuit University around the world. The main topics of the program are community leadership, global citizenship, Ignatian discernment, action aimed at common good and the use of practical tools.

#### RESULTS

- ✔ Linkages between **regional networks of Jesuit Higher Education supported the dissemination of the program** in the Society of Jesus universities.
- ✔ The diversity of the international students that participated in the program made it **possible to learn about the students' specific contexts, their interests, concerns, and desires.**
- ✔ Various Jesuit universities, mainly in the United States, were interested in **learning the I-Lead model in order to replicate it in their institutions.**
- ✔ Talks are taking place with the **coordinators of the Latin-American Ignatian Leadership Program from the Latin America Jesuit Universities Association**, to create important opportunities for the students.
- ✔ Students showed **active participation** in the program
- ✔ A small **international community of meeting, care, respect, and leadership formation** was created.

#### OBJECTIVES

- 🎯 Learn about the **characteristic of an Ignatian leader** looking for the societies' common good, through dialogue integration, actors' participation, critical thinking, and committed work.
- 🎯 Achieve a **general knowledge about the Society of Jesus, spirituality, and Ignatian Pedagogy.**
- 🎯 Develop a **critical conscience about the global and local context**, from the perspective of social justice, equity, fraternity, and reconciliation
- 🎯 Learn **decision-making methodologies** through community dialogue, teamwork, and solidarity processes.
- 🎯 Develop **professional skills** for effective communication, the capacity of advocacy, and project management, **from an ethical and collaborative perspective.**
- 🎯 **Evaluate the implementation of knowledge, skills, and leadership**, aiming at promoting feedback for the team and improving the decision-making process
- 🎯 Meet and work with **students from Jesuit universities around the world**

#### OPPORTUNITIES FOR IMPROVEMENT

- 📌 **Easing of the institutional administrative processes** to enable and facilitate the participation of students from other Jesuit universities in the institutional platforms
- 📌 Explore the **possibility of offering the program in person**, in a different temporary format
- 📌 **Strengthen the interinstitutional cooperation** links between Jesuit universities to promote the students' participation
- 📌 **Promote the program** in other institutions, aiming at replicating it
- 📌 **Delve into the reasons** why students abandon the program
- 📌 **Raise funds** for possible participants' annual meetings

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# *I-LEAD: Ignatian Leaders Engaging in Action and Discernment*

## *Abriendo espacios de encuentro y formación en tiempos del COVID-19*

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#### ABSTRACT

A partir de la crisis generada por la pandemia del COVID-19 y los desafíos que esta ha significado para el ámbito formativo de la educación jesuita, se creó el programa de liderazgo I-Lead (Ignatian Leaders Engaging in Action and Discernment). Un programa en línea y sin costo dirigido a alumnos de licenciatura de las 196 instituciones de Educación Superior de la Compañía de Jesús, mismo que está enraizado en la espiritualidad y pedagogía ignaciana. El I-Lead se enfoca en formar líderes ignacianos capaces de leer la realidad de manera crítica, de comprometerse y actuar en ella desde una toma discernida de decisiones concretas que miren desde y hacia la colectividad para el bien mayor de nuestras sociedades. Asimismo, está en su modo de proceder la escucha y el diálogo profundo de las diferentes experiencias de los estudiantes así como el uso de herramientas prácticas (activismo digital, activismo artístico, procuración de fondos, entre otros), a fin de que sean capaces de asumirse como parte de una comunidad internacional de ciudadanos globales con procesos en común.

## DESCRIPCIÓN

El I-Lead (Ignatian Leaders Engaging in Action and Discernment) es un programa de liderazgo en línea que tiene sus raíces en la pedagogía y espiritualidad ignaciana. Está dirigido a estudiantes de licenciatura de cualquier universidad jesuita alrededor del mundo.

Los ejes temáticos del programa son el liderazgo comunitario, el ejercicio de la ciudadanía global, el compromiso social, el discernimiento ignaciano, la acción dirigida al bien común y el uso de herramientas prácticas desde la puesta en diálogo de experiencias concretas tanto individuales como colectivas.

El programa se encuentra alojado en la Universidad de San Francisco, en el área de las Iniciativas Arrupe del departamento del Área Pastoral Universitaria (University Ministry). Se imparte de manera mensual en inglés y se ofrece acompañamiento y traducción al español.

## CONTEXTO

Durante los últimos años, hemos sido testigos de una permanente crisis global en los diferentes espacios de liderazgo de nuestra sociedad. Como consecuencia de ello, hay una imperante desigualdad social y económica; violencias raciales y de géne-

ro que se han develado e incluso exaltado de manera preocupante; un continuo éxodo de miles de personas que han sido expulsados dramáticamente de sus lugares de origen. Todo ello, como parte de un atropellamiento sistemático a los derechos humanos más básicos que tienen su raíz en prácticas de odio, corrupción, impunidad e indiferencia. Esta compleja crisis de liderazgo intensificó su notoriedad en el año 2020 con la fallida respuesta a la pandemia del Covid-19, generando así una crisis sanitaria que pronto se convirtió en una económica, política, e incluso, educativa, a lo largo y ancho del planeta.

En lo que corresponde a la Universidad de San Francisco, rápidamente se tomó la decisión de continuar el año académico en línea y evitar cualquier tipo de actividad que reuniera presencialmente a los miembros de la comunidad universitaria, a fin de evitar la propagación del virus. Frente a este desafío, el equipo de las Iniciativas Arrupe de la Universidad de San Francisco tuvo que responder de manera rápida y creativa a la indicación de no continuar con las estancias cortas de inmersión en nuestras universidades hermanas en América Latina, actividad prioritaria de la oficina previo a la pandemia. Fue así que a partir de la

“***Abrir las puertas de la Universidad de San Francisco a cualquier estudiante de entre las 196 instituciones de Educación Superior de la Compañía de Jesús, a partir de un programa de Liderazgo ignaciano.***”

lectura de una realidad cambiante y sin certidumbre, el equipo escuchó las palabras del Secretario de Educación Superior de la Compañía de Jesús, Michael Garanzini, S.J., en las que señaló que el mundo digital nos situaba en una dinámica distinta en la que no había pretexto para abrir nuestras puertas a cualquier joven estudiante que quisiera acercarse a nuestras universidades jesuitas en el mundo.

Ante esta provocación, se deliberó de manera colegiada que había una gran oportunidad, si bien no para salir de las periferias propias como se venía haciendo durante años atrás, si no para abrir las puertas de la Universidad de San Francisco a cualquier estudiante de entre las 196 instituciones de Educación Superior de la Compañía de Jesús, a partir de un programa de Liderazgo Ignaciano. Con ello, en medio de la incertidumbre, se creó el I-LEAD (Ignatian Leaders Engaging in Action and Discernment), mientras que ha buscado fungir como una estructura de estabilidad para los jóvenes, en la que se reconocen los vínculos con nuestras instituciones hermanas y, a partir de estos, se crean lazos de encuentro entre estos futuros líderes ignacianos, de tal forma que se asuman como ciudadanos verdaderamente glo-

bales enraizados en la espiritualidad y la pedagogía ignaciana te-

niendo como punto de partida la realidad concreta que están experimentando del Sur hasta el Norte y del Oeste al Este.

En el I-LEAD también se busca que los estudiantes sean capaces de mirar más allá de los propios límites de su privilegio, que descubran cuáles son aquellas heridas sociales que les han sido heredadas y les invitan a moverse a la acción. A su vez, que se asuman como una comunidad y que juntos reflexionen y dialoguen críticamente pero de manera compasiva frente a la realidad social en la que habitan. Como dijo el Papa Francisco- “que vivan en continua tensión, que no escondan la cabeza de la realidad de la tierra y no vendan su conciencia a la mundanidad.” (2015) Que pongan en juego su creatividad, emociones, intuiciones, inteligencia y herramientas prácticas para responder efectiva y concretamente a los retos que se les van imponiendo a lo largo de sus vidas.

## TIPO DE EXPERIENCIA

Como se señaló anteriormente, la pedagogía del I-Lead tiene como punto de partida la realidad concreta actual, misma que al incluir una comunidad internacional constituida por estudiantes de diversas localidades en el mundo, se despliega en realidades específicas que los marcarán en sus decisiones y compromisos futuros. De ahí que se busque conju-

gar el ejercicio intelectual con las experiencias vividas, la cultura heredada, los sentimientos y emociones que surgen de estar en la realidad a través de procesos colectivos. Es un proceso comunitario en el que se busca deshilar la historia y los hechos recientes para abrir un espacio de reflexión, diálogo, pero también de invitación a pensar y repensar alternativas. Además, se presta especial atención a las problemáticas emergentes y se les asume como susurros que van dando pistas y direccionan a los sistemas estructurales que intentan determinar y despojar a los individuos de su propia participación en la construcción de una vida digna y humana.

Si bien es un proceso colectivo en el sentido tradicional religioso, en donde se crean espacios saludables y de reflexión conjunta, también es desafiante porque provoca un liderazgo desde las preocupaciones humanas y desde ahí les motiva a estar en medio de las tensiones sociales y comprometerse con ellas. En este proceso de formación de líderes se reconoce a las personas y al tejido social de las múltiples relaciones que van ocurriendo en el aula; no se les asume a los participantes como islas aisladas sino como una posibilidad de encuentro. Por ello, es crucial que se reconozca a los estudiantes no sólo como sujetos protagonistas de este proceso, sino como actores con una dimensión política capaz de incidir y de tomar decisiones asertivas desde, con y para la sociedad en su conjunto, poniendo por de-

lante a los más vulnerados.

De esta manera, el programa surge desde una utopía esperanzadora en la que la reconciliación y la justicia son posibles a partir de la creación de movimiento y de puentes de encuentro, pues justo ello es lo que, desde la perspectiva del programa, permite andar con Fe y retar los parámetros que nos han sido impuestos.

Para lograr esto nos inspiramos en la pedagogía ignaciana y en la pedagogía crítica, que a partir de la reflexión y experiencia conjunta ha devenido en lo siguiente:

Por Pedagogía Ignaciana entendemos un proceso inspirado en la experiencia de San Ignacio, los *Ejercicios Espirituales* y en la invitación que surgió desde la Congregación General 32 en el que la Compañía de Jesús asume el binomio de Fe y Justicia como horizonte y misión. Es una pedagogía que tiene como centro al estudiante y mira a éste en toda su totalidad, se le reconoce y se le acompaña de manera cercana, sensible, activa y respetuosa. Busca ser una experiencia liberadora para que el alumno sea capaz de mirar la realidad, acercarse, comprometerse e incidir en ella desde una perspectiva de servicio y fraternidad. Para lograr este objetivo se utiliza el Paradigma Pedagógico Ignaciano (contexto, experiencia, reflexión, acción y evaluación), a fin de enri-

quecer el proceso formativo en su conjunto.

Ahora bien, la inspiración de la Pedagogía Crítica (PC) permitió que el modo de proceder del I-LEAD tomará un enfoque de enseñanza y aprendizaje que ha buscado humanizar y empoderar a los estudiantes interrumpiendo y transformando la relación de poder en el aula que tradicionalmente trabaja hacia la opresión y el silenciamiento de algunos grupos (Kincheloe, 2005). Suele atribuirse al educador brasileño Paulo Freire, y sus enseñanzas sobre la pedagogía del oprimido (1971), quien utilizó los principios de la escuela de teoría crítica de Frankfurt como fuente principal. La teoría crítica se ocupa de la idea de una sociedad justa en la que las personas tienen el control político, económico y cultural de sus vidas. (Aliakbari, 2011). Por ello, se busca que la pedagogía del I-LEAD sea inclusiva pues centra su atención en la interdisciplinariedad del conocimiento y la importancia de un currículo culturalmente relevante, que responda directamente a las necesidades y experiencias vividas de los estudiantes y en la que sea transparente la influencia del educador en el comportamiento de los alumnos, cuestionando las dinámicas de poder presentes dentro y fuera del aula, mientras que se buscan redefinir y reimaginar las identidades que ahí convergen. (Giroux 2011)

Fue a partir de la conjunción de estas inspiraciones de vertientes pedagógicas se construyó el programa

I-LEAD.

## OBJETIVOS Y METODOLOGÍA

En este apartado se muestra de manera detallada la estructura, los objetivos y la metodología del I-LEAD.

### **Objetivos generales del programa**

- Aprender los aspectos que conforman a un líder ignaciano que busca el bien común de las sociedades, a través de la integración del diálogo, la participación de los actores involucrados, el pensamiento crítico y la acción comprometida.
- Adquirir un conocimiento general de la Compañía de Jesús, la espiritualidad y la pedagogía ignaciana.
- Desarrollar una conciencia crítica del contexto global y local en el que están inmersos, desde la perspectiva de la justicia social, la equidad, la fraternidad y la reconciliación.
- Aprender metodologías para la toma de decisiones a través del diálogo comunitario, el trabajo en equipo y los procesos de solidaridad.
- Desarrollar habilidades profesionales para la comunicación efectiva, la capacidad de inci-

dencia, y de gestión de proyectos, desde una perspectiva ética y colaborativa.

- Evaluar la aplicación de sus conocimientos, habilidades y liderazgo, con el fin de promover la retroalimentación del equipo y la mejora en la toma de decisiones.
- Conocer y trabajar con estudiantes de universidades jesuitas de todo el mundo.

### **Estructura del programa**

Con base en las pedagogías ignaciana y crítica, la crisis en el contexto global y la necesidad de crear espacios comunes con nuestras universidades hermanas, el equipo de Iniciativas Arrupe creó este curso de liderazgo basado en cinco pilares, los cuales están representados en el nombre I-LEAD (por sus siglas en inglés: *Ignatian Leaders Engaging in Action and Discernment*), que para efectos de este artículo se traducen en los siguientes conceptos: Liderazgo, Compromiso Social, Acción y Discernimiento Ignacianos. Más adelante se desglosan los conceptos en módulos específicos (Tabla 1).

Tabla 1: Módulos de formación I-LEAD

|   | MÓDULO                             | OBJETIVO   | HABILIDAD A DESARROLLAR  | EVALUACIÓN   |
|---|------------------------------------|--|--|--|
| I | El “yo” en el “nosotros”           | Verbalizar inquietudes e intereses. Conocer y trabajar con estudiantes de universidades jesuitas de todo el mundo.   | Capacidad de introspección<br><br>Comunicación Efectiva          | Reflexión de la actividad “Raíz de tu motivación”; ejercicio de escritura somática para rastrear el origen del interés en un tema. |
|   | Ser parte de la red jesuita        | Adquirir un conocimiento general de la Compañía de Jesús, la red educativa jesuita, la espiritualidad ignaciana y la pedagogía.                                      | Relaciones interpersonales                                       | Retroalimentación<br>Diario de reflexión   |
| L | Autoconocimiento para el liderazgo | Explorar “el ser” para autoconocerse, buscar la autoaceptación y trabajar en el desarrollo personal.   | Conciencia de sí mismo   | Eneagrama<br>Cartas de solidaridad   |
| E | Encuentro con la realidad          | Desarrollar una conciencia crítica del contexto global y local en el que están inmersos, desde la perspectiva de la justicia social, la equidad y la reconciliación. | Pensamiento y lectura crítica                                    | Investigación crítica y lectura de su realidad.  |
| A | Acción contemplativa               | Aprender metodologías para la toma de decisiones a través del diálogo comunitario, el trabajo en equipo y los procesos de solidaridad.                               | Pensamiento creativo<br>Activismo digital<br>Activismo artístico | Retroalimentación<br>Diario de reflexión   |



|                            |  |   |  |                                |
|----------------------------|--|---|--|--------------------------------|
| D                          | Discernimiento en las decisiones de vida | Evaluar la aplicación de sus conocimientos, habilidades y liderazgo, con el fin de promover la retroalimentación del equipo y la mejora en la toma de decisiones.   | Discernimiento<br>Toma de decisiones responsables  | Examen Ignaciano               |
| I<br>*<br>L<br>E<br>A<br>D | Reto I-LEAD                              | Desarrollar habilidades profesionales para la comunicación efectiva, la capacidad de incidencia y de gestión de proyectos, desde una perspectiva ética y colaborativa.  | Resolución de problemas<br>Manejo de estrés<br>Recaudación de fondos<br>Defensa de proyectos | Reto I-LEAD                    |
|                            | Los I-LEADers                            | Revisar los aspectos que conforman a un líder ignaciano que busca el bien común de las sociedades, a través de la integración del diálogo, la participación de los actores involucrados, el pensamiento crítico y la acción comprometida. | Empatía y relaciones interpersonales.  | Retroalimentación comunitaria. |

El circuito de aprendizaje del programa (ver Figura 1) está centrado en los estudiantes, partiendo de sus realidades y contextos para la construcción y planeación de las actividades y los temas a cubrir. El programa I-LEAD está dividido en ocho módulos divididos durante dos semestres.

Cada módulo cuenta con una reunión mensual en línea, que tiene una duración de entre 90 y 120 minutos, en el que se aborda un tema en específico. Antes de iniciar la reunión se habilita un espacio no estructurado para que los estudiantes conversen entre sí de manera informal y sin la presencia de los facilitadores. De manera similar, se promueve el uso de la función de chat para mantener esas conversaciones o *backchannel*<sup>1</sup> abiertos durante la reunión,

1: Un backchannel es una conversación digital que se desarrolla al mismo tiempo que una actividad cara a cara que proporciona a los estudiantes una oportunidad para entablar conversaciones o tener discusiones independiente sin la participación y monitoreo del instructor/facilitador.

y de esta manera replicar, a medida de lo posible, las relaciones amistosas que se crean entre estudiantes en el aula. Las sesiones usualmente comienzan con un espacio de meditación o de anclaje, seguidos por una actividad de reportaje comunitario, donde estudiantes y facilitadores pueden verbalizar cualquier dificultad, logro o cambio que haya sucedido en sus vidas durante el último mes. Posteriormente se comienza con la actividad central la cual busca desarrollar una habilidad vital de vida, ahondar en

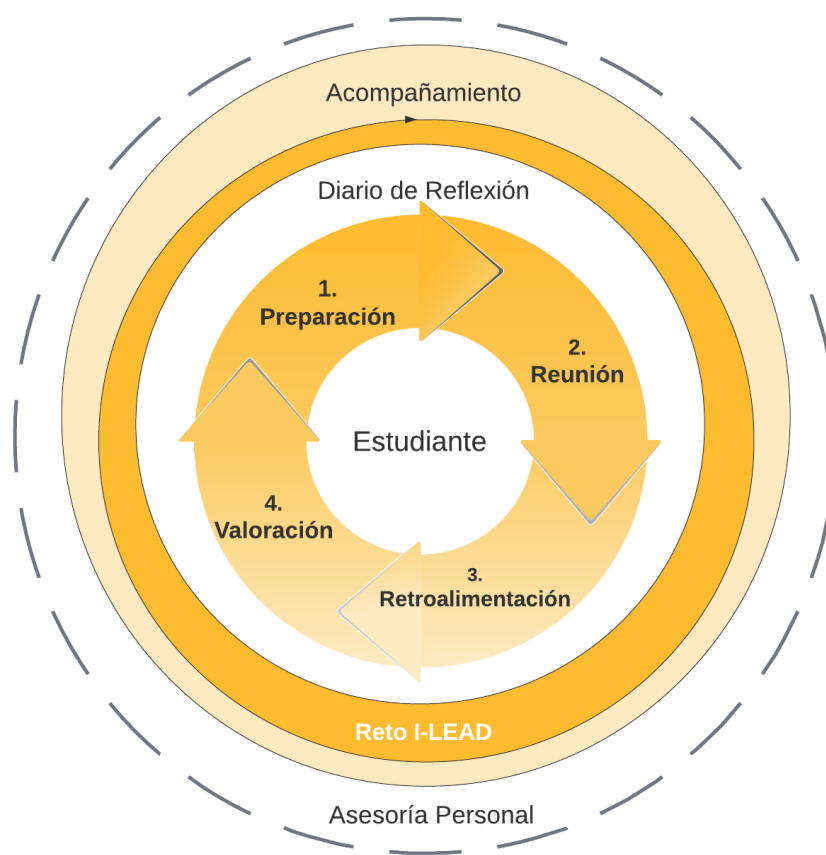
el tema correspondiente (I-LEAD) y, sobretodo, sembrar la crítica y el cuestionamiento ante las injusticias y sistemas de opresión en los cuales habitan los participantes. Se finaliza la reunión con una breve reflexión en la que los participantes resumen lo aprendido y se facilita nuevamente un espacio para el diálogo informal que en esta ocasión incluye la participación de los facilitadores.

De manera asincrónica, los estudiantes deben de realizar actividades de preparación previo a las sesiones y de valoración después de estas. De manera específica, lo asignado antes de la reunión se refiere a tareas sencillas como la lectura de textos cortos, la visualización de materiales audiovisuales, realizar presentaciones breves y creativas, responder el cuestionario del Eneagrama, recolectar material de manualidades para elaborar arte de activismo, entre otros. A su vez, las actividades de valoración son aquellos entregables que sirven como evidencia de aprendizaje y participación que pueden ser agregados a un portafolio de liderazgo. Algunos ejemplos son: escritura de cartas de solidaridad, creación de arte y contenido estratégico para el activismo, reflexiones en torno a los temas de reunión.

Además, se utilizan encuestas de retroalimentación al final de cada sesión como herramienta constante para la inclusión de voces y opiniones de los estudiantes en el proceso de planeación, entendiendo

que sus realidades son cambiantes, especialmente durante la pandemia del COVID-19. En ese sentido, la información obtenida es utilizada para modificar y personalizar el contenido de la siguiente sesión. Asimismo, estas encuestas de retroalimentación son otra manera de entender a los estudiantes como sujetos activos de la planeación del programa, en el que se ofrece otra oportunidad para que reflexionen y verbalicen sus preocupaciones e intereses.

Figura 1: Circuito de Aprendizaje I-LEAD



Las sesiones sirven como ancla para el proceso reflexivo que los estudiantes realizan por medio de un

“diario de reflexión”. Este diario es una actividad que realizan de manera asincrónica a partir de preguntas y sugerencias de reflexión (*reflection prompts*) mensuales generadas por los facilitadores. En ellas se les invita a hacer una observación sobre su propio aprendizaje, así como una metacognición, en la que reflexionen sobre el cómo piensan lo que piensan. El objetivo del “diario de reflexión” es que los estudiantes consoliden sus aprendizajes y habilidades adquiridos durante el módulo; se reconozcan como

agentes de cambio, pensadores y miembros de una comunidad; impulsen su creatividad generando preguntas y haciendo un análisis de su realidad; y retroalimenten a sus compañeros y a los facilitadores.

Más allá de la reflexión, este programa de liderazgo termina con un reto práctico llamado el reto I-LEAD, el cual pone a prueba a los y las estudiantes por medio de un desafío de 24 horas, en el que deben trabajar en equipo y poner en acción todas las habilidades y conocimientos adquiridos a lo largo de las sesiones.

Este componente práctico funge de evidencia en la creación de un portafolio de liderazgo que además

sirve para fortalecer y solidificar la relación de los estudiantes con organizaciones, instituciones y grupos comunitarios con los que a lo largo del programa se ha interactuado. El objetivo de este reto, es que los alumnos se asuman como líderes y agentes de cambio, que por medio de una lectura crítica de la realidad, y basados en la espiritualidad ignaciana, reclamen su agencia política y de incidencia.

Como parte fundamental de la experiencia del I-LEAD se encuentra el acompañamiento al estudiante, pues se asume al estudiante en su complejidad y multidimensionalidad. Este proceso surge de la escucha cercana a las necesidades, aptitudes, deseos, angustias del alumno, de tal forma que se le puede orientar e invitarlo a discernir desde sus propias experiencias. Es un proceso formativo que busca que el estudiante tome sus propias decisiones. En ese sentido, la experiencia de los facilitadores tanto en Ejercicios Espirituales, participación en retiros y otros programas de acompañamiento permiten que este espacio sea fructífero para el estudiante.

Por último, la opción de asesorías individualizadas está disponible para estudiantes que quieran ahondar en experiencias particulares, temas del programa o explorar nuevas inquietudes, de manera colaborativa e individual con los facilitadores. Es importante destacar que estas asesorías se ofre-

2: Estudiantes de las universidades e institutos mencionados aplicaron y estuvieron presentes en por lo menos una de las reuniones.

cen tanto en Inglés (el idioma oficial del programa) como en español y, que tanto el material como las comunicaciones con el grupo suelen estar en ambos idiomas. De esta manera garantizamos la accesibilidad, el aprovechamiento y el disfrute del programa a todos los participantes. Esto es central a la misión del programa I-LEAD de abrir espacios internacionales y reducir los obstáculos estructurales que pudieran impedir la colaboración de universidades hermanas.

**Participantes.** En lo que corresponde a los participantes, de manera inicial se conformó un grupo de estudiantes de nivel licenciatura de diversas universidades jesuitas del continente Americano, entre las que se encuentran<sup>2</sup>: Instituto Tecnológico y de Estudios Superiores de Occidente - ITESO (México), Loyola University Maryland (Estados Unidos), Loyola University Chicago (Estados Unidos), Marquette University (Estados Unidos), Pontificia Universidad Católica del Ecuador, Pontificia Universidad Javeriana de Cali (Colombia), Universidad Iberoamericana León (México), Universidad de San Francisco (Estados Unidos - sede) y Santa Clara University (Estados Unidos).

El reclutamiento para el programa se hizo a través de canales de comunicación internos en la Universidad de San Francisco, mientras que con el resto de

aplicaron y estuvieron presentes en por lo menos una de las reuniones.

las instituciones se realizó con el apoyo de las redes regionales de Educación Superior de la Compañía de Jesús, quienes a su vez compartieron dicha información con sus respectivas redes pastorales universitarias.

**Facilitadores.** Se elige el término “facilitador” a favor del término instructor, ya que se reta la dinámica del aula hegemónica donde el instructor es el poseedor del conocimiento y la información. En su lugar, se entiende al facilitador como aquel que comparte el crecimiento intelectual y espiritual de los estudiantes. De igual manera, inspirados en la pedagogía crítica, se hace visible que el centro del programa son los estudiantes, por lo tanto, los facilitadores están presentes para guiar y apoyar el desarrollo del pensamiento y aprendizaje de los alumnos.

Por su parte los facilitadores son partícipes de un ciclo de preparación por cada módulo, el cual cuenta con juntas de reflexión, preparación de la sesión, ejecución de la sesión y por último análisis de retroalimentación de los estudiantes.

**Juntas de reflexión.** Las juntas son espacios de planeación semanal en el que participan tanto los facilitadores del programa como el resto de los colaboradores de las Iniciativas Arrupe, de tal manera que las actividades y decisiones se ejecutan desde un diálogo interdisciplinario y colaborativo, enraizado

en la misión del apostolado educativo jesuita.

Estos son los principales componentes de las juntas:

- Se asume e incorpora la **retroalimentación de los estudiantes**, a fin de situar el aprendizaje en ellos.
- Se busca ejercer un **pensamiento crítico** desde la interdisciplinariedad y las perspectivas de derechos humanos, de trabajo e incidencia comunitaria, de liderazgo administrativo, y de la lectura crítica y el reconocimiento de la coyuntura social.
- Se construye un espacio de **inclusión radical** en el que se reconocen la variedad de culturas, la diversidad de género, de lenguaje, a fin de fungir como un espacio seguro.
- Se brinda un acompañamiento comunitario y personal, basado en la Cura Personalis.

**Preparación de la sesión.** Este proceso inicia con el tema de la siguiente sesión en el que los miembros de las Iniciativas Arrupe proponen actividades que inviten e inspiren a los estudiantes a participar activamente en ellas. Una vez elegidas las actividades, se planean colectivamente para reforzar el propósito de las mismas. Se mantienen lo siguiente en mente:

- Planear para la incertidumbre y la pluralidad, entendiendo que los estudiantes son seres humanos y que las realidades son cambiantes

- Hacer énfasis en distinguir los sistemas de opresión y privilegio. Asimismo, se mantiene una comprensión evolutiva y reflexiva de la posición que realmente ocupan los facilitadores en el aula.
- Todos los materiales utilizados son gratuitos para garantizar el acceso para todos.

**Ejecución de la sesión del I-LEAD.** Los facilitadores son, a su vez, partícipes en todas las actividades de la sesión y se reparten entre ellos la responsabilidad de dirigir las actividades. De esta manera, se garantiza que siempre haya un facilitador disponible para dar acompañamiento y soporte inmediato a los estudiantes; se ofrezca una multiplicidad de voces y perspectivas y; los facilitadores tengan la oportunidad de mostrar la misma vulnerabilidad que se les pide a los estudiantes.

**Retroalimentación.** La retroalimentación se toma de diversas fuentes: formularios, comentarios de estudiantes durante la sesión y comunicaciones directas entre facilitadores y estudiantes, ya sea por medio de las asesorías personalizadas o por intercambio de correos.

## RESULTADOS OBTENIDOS

Entre los resultados obtenidos una vez puesto en marcha el programa de liderazgo, se encuentran:

- Los vínculos entre las redes regionales de Educación Superior Jesuita apoyaron de manera importante la difusión del programa entre las universidades de la Compañía de Jesús. Esto provocó para el primer cohorte un interés de alrededor de 30 estudiantes de 11 instituciones distintas principalmente de Estados Unidos y América Latina.
- La participación de esta diversidad de estudiantes internacionales en el programa permite conocer cuáles son los contextos específicos que atraviesan los estudiantes, sus intereses, preocupaciones y deseos. Así como su capacidad de hacer lazos de encuentro entre unos y otros.
- Diversas universidades jesuitas, principalmente en Estados Unidos, han mostrado su interés por conocer el modelo del I-LEAD y su contenido, con el propósito de poderlo replicar en sus instituciones. Se considera ésta como una gran oportunidad para crear una comunidad de programas de liderazgo basados en la tradición ignaciana, de tal manera que los estudiantes puedan acercarse a nuestras instituciones sin que los temas financieros o de movilidad sean un obstáculo. Asimismo, una vez que las medidas sanitarias por el COVID-19 nos permitan restablecer las estancias cortas, hay posibilidades de reunir en la Uni-

versidad de San Francisco a los participantes del programa en un encuentro de liderazgo y de generación de redes, tal como sucede en América Latina.

- Se han iniciado conversaciones con la coordinación del Programa de Liderazgo Ignaciano Latinoamericano (PLIUL) de la Asociación de Universidades Jesuitas en América Latina (AUSJAL), ya que esta es una experiencia de gran valor y con años de trabajo en la que se pueden crear oportunidades importantes para los estudiantes. En este momento (Otoño 2020), se plantea la posibilidad de crear un programa piloto con la Universidad de San Francisco en el que se explore la incorporación de las universidades de Estados Unidos en el programa de liderazgo PLIUL, a fin de aprovechar nuestras redes, combinar esfuerzos, nutrirse colectivamente y abrir espacios para la Comunidad Universitaria Jesuita.
- De manera positiva resalta la activa participación de los estudiantes en las sesiones del programa. El intercambio de ideas, experiencias o emociones no se ha visto afectado por la diferencia de culturas o idiomas. Asimismo, se ve como un acierto que los facilitadores sean bilingües.

- Se ha creado en el programa una pequeña comunidad internacional de encuentro, cuidado, respeto y formación en liderazgo. Los estudiantes han expresado continuamente que el espacio de I-LEAD les ha ayudado a llevar la incertidumbre que conlleva la pandemia, así como que los ha ayudado a entenderse como agentes de cambio en sus comunidades.

## LECCIONES APRENDIDAS

Desde su creación, el I-LEAD tuvo que responder dinámica y flexiblemente ante los propios desafíos que convergen en un programa en línea con estudiantes de diversas culturas, zonas geográficas, idiomas, pero también desde las propias limitaciones institucionales.

A continuación se especifican algunas de las lecciones aprendidas y áreas de oportunidad:

- Hay interés y pasión de nuestros estudiantes por hacerse cargo de la realidad.
- Es posible abrir las puertas de la universidad y aprovechar la diversidad de nuestra comunidad estudiantil para crear procesos conjuntos.
- Por las diferenciación de las zonas horarias en las que están situadas nuestras instituciones, se complejiza la participación amplia de estudiantes. Se deben buscar estrategias con el

objetivo de generar oportunidades para jóvenes de universidades situadas en otros continentes.

- El reto que presenta el ámbito de la virtualidad es el de no dejar de lado la realidad concreta y las afectaciones que se desprenden de la interacción con ella. Por ello, es necesario recurrir a estrategias que permitan situarse en los contextos propios y globales.
- Existe un reto constante en promover la experiencia concreta y prestarle atención a lo cotidiano, pues esto permite que los estudiantes desarrollen otras formas de sensibilidad y percepción capaces de abrir nuevas formas de entrar en sintonía con la existencia humana.

## ÁREAS DE OPORTUNIDAD

- Hay una necesidad de flexibilizar procesos administrativos de las instituciones, a fin de posibilitar y facilitar la participación de estudiantes de otras universidades jesuitas en nuestras plataformas institucionales.
- Fortalecer los lazos de cooperación interinstitucional entre las universidades jesuitas para promover la participación de más estudiantes.
- Ahondar en las razones por las cuales algunos estudiantes abandonaron el programa.

- Explorar la posibilidad de que este programa se pueda ofrecer de manera presencial, en un formato temporal distinto.
- Promover este programa entre otras instituciones, a fin de que sea replicable.
- Consecución de fondos para posibles encuentros anuales de los participantes.

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## *Assessing the “Best Practices and know-how” of St. Xavier’s College (Autonomous), Kolkata: A Case Analysis with some Empirical Viewpoints*

### ABSTRACT

In the current era of hyperbolic transitions and ramifications, the sacrosanct landscape of education should also be metamorphosed constantly to cope with the mercurial changes percolating in the ever-transient society. In this context, the role played by Higher Education Institutions (HEI’s) has become more challenging. Hence, certain practices need to be followed in such institutions to keep education afloat and engrave a significant mark in the minds of its students. In this light, it is imperative to talk about Jesuit Higher Education Institutions that aim to provide a 360-degree development among their students by helping them fulfil their dream of rich quality education and shaping their overall personality and emphasizing their holistic growth. Several Jesuit IHEs have recently incorporated a plethora of innovative practices oriented mainly to the academic - pedagogical areas and the extra-curricular and social transformation dimensions.

St. Xavier’s College, Kolkata, has also undertaken some eye-twitching measures to propel the Ignatian Pedagogy and perch itself very high in the ambit of pedagogical innovations. This article presents an assessment of these best practices and know-how. Based on the Ignatian Pedagogy Paradigm, the authors define a theoretical and methodological framework to analyze the best practices implemented by the College. They used student’s perception to carry out a multiple regression analysis to test the correlation between the different dimensions of IPP and the best practices implemented.

### THE INITIATIVE

This article describes a series of seven best practices that the students of Xavier’s College experienced and the competencies and knowledge they are expected to achieve from them:

- Best Practices towards Academic experience aimed at Pedagogical Innovation
- Best Practices towards Extra-Curricular experience aimed at Pedagogical Innovation
- Best Practices for gaining an experience towards Society aimed at Ignatian Pedagogy
- Best Practices entirely towards Teaching-Learning experience aimed at Ignatian Pedagogy
- Best Practices in Teaching-Learning experience during the ‘New Normal’
- Best Practices for gaining an experience towards Environment aimed at Ignatian Pedagogy
- Best Practices to gain experience towards Sustainable Development Goals (SDGs) aimed at Ignatian Pedagogy

### OBJECTIVES

- 🎯 To explore the challenges faced by Jesuit Higher Education Institutions in the current scenario.
- 🎯 To highlight the best practices adopted and implemented by St. Xavier’s College, Kolkata.
- 🎯 To examine and analyze the perception of the students of St. Xavier’s College towards the best practices undertaken by the college.

### LESSONS LEARNED

- 📖 Capturing the nous of students in the sense that making them think **deep to encompass engagement with the practicality of the world and human conditions.**
- 📖 **Coping up with the changes and advent of technologies,** especially those that foster pedagogical renovations, bolsters the Ignatian Pedagogy.
- 📖 Keeping up with the pace of various needs and expectations among its students makes them more committed, competent and conscious, instilling in them a splendid aspect of compassion to care for and serve society.
- 📖 Implementing best practices oriented towards academics, extra-curricular activities, society and the environment, especially during the ongoing times of the current global pandemic, has been lauded all over. Doing so is serving society and thus serving God, which is one of the most crucial intentions of the Jesuits.
- 📖 Innovative approaches undertaken by St. Xavier’s College has enhanced student engagement, motivation and critical thinking, more profound reflection, higher-level thinking and positive actions on decision making among students.

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# *Assessing the “Best Practices and know-how” of St. Xavier’s College (Autonomous), Kolkata: A Case Analysis with some Empirical Viewpoints*

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### ABSTRACT

In the current era of hyperbolic transitions and ramifications, the sacrosanct landscape of education should also be metamorphosed constantly to cope up with the mercurial changes percolating in the ever transient society. In this context, the roles played by Higher Education Institutions (HEI’s), has become more challenging and hence certain practices need to be followed in such institutions to keep educational afloat as well as engrave a significant mark in the minds of its students. In this light, it is almost imperative to talk about Jesuit Higher Education Institutions who aim to provide a 360-degree development among its students, by not only catering to fulfil its students’ dream of a rich quality education but also shaping the personality of the students, thereby, emphasizing in the overall growth of it students and hence epitomizing the real spirit of Ignatian charisma and pedagogy. Myriad Jesuit HEI’s that of late

have incorporated a plethora of head-turning practices in their institutions aiming primarily at academics but also simultaneously focusing on the extra-curricular dimensions of its students and the society. St. Xavier's College, Kolkata has also undertaken some eye-twitching measures to propel the Ignatian Pedagogy as well as perch itself very high in the ambit of pedagogical innovations which shall be discussed.

**Key words:** Jesuit Higher Education Institutions; Best Practices; Pedagogical Innovation; Ignatian Pedagogy; St. Xavier's College, Kolkata

## INTRODUCTORY CONTEMPLATIONS

In the backdrop of the hyper-competitive academic sphere, the principle of "survival of the fittest" well and truly exemplifies its impeccable relevance. The fast paced world has been driven largely by the astounding upsurge in globalization, technological innovations and bewildering changes in the modus vivendi of the people. The impact of such dramatic changes have even been felt in the circa of academia, which is going through constant changes. Higher Education Institutions face a herculean task of not only keeping itself upbeat with the new dimensions in the ambit of academics but also face an uphill task of adapting and constantly renovating itself with the latest practices both inside the classroom environment as well as outside to fine-tune the quality of education offerings as well as shape the personality making them agents of changes to better prepare themselves for any mercurial situations and demands thrown at them in the future.

This in turn serves the basic objective of the charisma carried by the Ignatian pedagogy focusing on the overall development of a student along with establishing a good healthy relationship between teachers and students, gives a holistic attention on teaching-learning process and gives a new direction to the practical meaning of a classroom, hence, serving the goals of Jesuit higher education. The current research endeavour has been attempted to explore and probe into the various pedagogical innovations implemented by St. Xavier's College, Kolkata. Based on the Pedagogical Innovations undertaken by St. Xavier's College, Kolkata, we have been able to reflect on the impact it has created by examining and analyzing the perception of 200 students of St. Xavier's College, Kolkata through a self-developed research model which would help describing the impact of such best practices by incorporating the 5 crux characteristics of Ignatian Pedagogical Paradigm which are "Context", "Experience", "Reflection", "Action" and "Evaluation." The study is a Case-Based

application taking into context the reputed Jesuit institution of St. Xavier's College, Kolkata. We will discuss about the various Pedagogical Innovations implemented and practiced by St. Xavier's College, Kolkata. We will also prune out the empirical evidences of the impact it has created on the students of the aforementioned college.

## PROBLEM STATEMENTS

The best practices of a Jesuit Higher Education Institution are generally surrounded by a very noble and hallowed principle that firmly believes in giving the best to the society by serving them and hence ultimately serving God. Jesuit Higher Education Institutions go beyond the realms of education engaging what is deemed to be an exquisite and exclusive work of extraordinary service. Jesuit Higher Education Institutions are not only expected to provide education of the highest quality to its students but also mold the students in their overall personality development and also catering to the societal causes. In this context, such institutions relentlessly in the quest for adopting, implementing and practicing certain activities, policies and methodologies that ensure the academic quality of their programs, provide an integral formation, carry

“Based on the Pedagogical Innovations undertaken by St. Xavier's College, Kolkata, we have been able to reflect on the impact it has created by examining and analyzing the perception of 200 students of St. Xavier's College, Kolkata through a self-developed research model which would help describing the impact of such best practices

out relevant research, to increase the efficiency of the institutional resources, to form managerial cadres, to remain at the forefront through processes of innovation; to respond appropriately to the challenges of the current scenario and most importantly to have an inexorable impact on society. For this purpose, such institutions must extensively be engaged in the process of pedagogical innovation to keep itself upbeat to bolster its stranglehold in the landscape of education and other related aspects that facilitate education. This is firmly rooted in the Ignatian gospel which is a nifty driving force to promote the goal of Jesuit Higher Education.

The current case probes into the various best practices undertaken by St. Xavier's College (Autonomous), Kolkata and the impact it has created on the perception of students of the institution by probing into the 5 characteristics of Ignatian Pedagogical Paradigm.

As such, three pivotal questions seem to be looming large in the context of this deliberation.

- What are the various challenges faced by Jesuit Higher Education Institutions at the nexus of academics and the overall development of students?
- What are the various practices undertaken by St. Xavier's College (Autonomous), Kolkata to encounter such challenges?
- How can St. Xavier's College (Autonomous), Kolkata guide its students towards the accomplishment of individual as well as societal goals?

## CASE ANALYSIS

The gargantuan roles played by Jesuit Higher Education Institutions is no hidden secret and has been much talked about which has garnered prodigious attention worldwide. The essence of Jesuit Higher Education Institutions lies in surging ahead of academics and beyond. To keep itself abreast among various ramifications stemming from the changes percolating with the passage of time, such institutions must engage itself in the best practices that cater to its students and the society at large. The practices must be oriented not only towards academics but also various academic related aspects facilitating education. Most importantly the practices must be instrumental towards the betterment of the society.

## PRELIMINARY ELUCIDATIONS

Before getting headway with the principle aspects of the case, it is important to establish the rationale behind undertaking such best practices of St. Xavier's College, Kolkata which has been the vanguard of innovation in the field of academia and many societal causes. The globally acknowledged sacrosanct education hub, located in the heart of Kolkata, has demonstrated and educated for generations that being only academic oriented is not the be-all and the end-all, but is more about the holistic process entailed in accomplishing the same towards the students, employees and the society. Successive generations of religious priests of the Society of Jesus, have endeavoured to adopt such noble *modus vivendi*. They have not only imparted high quality knowledge, but have also played an instrumental role in motivating and encouraging innumerable students and people all over these years to be conscientious towards the society. Here we will discuss about the various Pedagogical Innovations undertaken by St. Xavier's College, Kolkata and briefly about the Ignatian Pedagogy while emphasizing largely and critically on the 5 basic characteristics of Ignatian Pedagogical Paradigm. The twin focal points of our research endeavour practiced by St. Xavier's College, Kolkata which focus on Pedagogical Innovations and Ignatian Pedagogy respectively be discussed in

“*Kolkata which has been the vanguard of innovation in the field of academia and many societal causes.*”

the upcoming paragraphs.

## DESCRIPTION

### Pedagogical Innovation

Pedagogy is often referred to as the process of educating or instructing or teaching those activities that impart knowledge and skill. The Oxford English Dictionary (2002), has defined pedagogy as “the profession, science and theory of teaching.” Putting in simple words, pedagogy is the art and science of teaching. There are 5 types of pedagogical approaches which are Constructivist, Collaborative, Integrative, Reflective and Enquiry Based Learning. But, in this research endeavour we shall only discuss about pedagogical innovations and for that purpose it is noteworthy to mention that the scope of pedagogical innovation is not only limited to teaching or educational process but includes a host of other facilities that foster the process of education like infrastructure, administrative management, technological resources, etc. Pedagogical Innovation is actually being updated with the processes that offers students a more comprehensive way of getting educated both inside and outside the classroom atmosphere. It meets their cognizant needs, exposes them to the outside world and enhances their skills and abilities

to face new demands posed by the mercurial changes. It is aimed at both academic

and non-academic curriculum of a higher education institution. Putting in a nutshell, pedagogical innovation is actually pedagogical renovation. Truth to be told, the notion of pedagogical innovation actually fulfils the Ignatian goal of focusing on the overall growth of students, making them “men and women for others” by constantly bolstering their consciousness, commitment, competence and compassion which are the 4C's of Jesuit education. Thus, the concept of Pedagogical Innovation and Ignatian Pedagogy are inter-related and inter-dependent.

## IGNATIAN PEDAGOGY

Ignatian Pedagogy is a concept deeply rooted in the tradition of Jesuit education which was established by St. Ignatius of Loyola in the 15th century. The advent of Jesuit education was a seismic shift in the domain of education which gave a new dimension to the sector of education itself. “Jesuits” are actually the Catholic priests who belong to the “Society of Jesus”, the highest religious order of the Catholic Church. The Society of Jesus was founded by St. Ignatius of Loyola along with his companions St. Francis Xavier and St. Peter Faber, which was later approved as a religious order in 1540 by the then Pope Paul III. Jesuits not only practice their religion but also undertake myriad works aimed towards the betterment of the society. There are certain Jesuit principles or values which exist, depicted below.

**Table 1: Core Values of Jesuits/Society of Jesus**

| Principle/Value                        | Meaning   |
|--|---|
| Magis                                  | More/Greater which is actually the strive for excellence  |
| Men and Women for others               | Going beyond sharing, caring and contributing   |
| Cura Personalis                        | Care for the individual person and respecting one another   |
| Unity of Heart, Mind and Soul          | Developing the whole person physically, psychologically and spiritually                                 |
| Ad Majorem Dei Gloriam (AMDG)          | Greater Glory of God  |
| Forming and Educating Agents of Change | Teaching of behaviours that reflect critical thought and responsible action on moral and ethical issues |

Ignatian Pedagogy (IP) encourages education of the whole student, i.e. overall development of the student. Albeit, Jesuit undertake a plethora of works in any corner of the world, but arguably education is their best work. This is a reason why Jesuits have often been referred as “best educators of Europe.” The principle of Jesuit education continues to reflect on the core values developed by St. Ignatius of Loyola, which stresses the active appropriation of knowledge and skills to build ethical and learned human beings. Such practices have actually been adopted from a plan of study document called “Ratio Studiorum” which is the official plan

**“There is a need felt to talk about the 21st century virtually-enhanced world, which has been driven by rapid proliferation of technology and other developments. In this light, it is highly relevant to talk about the landscape of education which has also witnessed wholesome changes.**

of Jesuit education introduced in the year 1599. At present, there are more than 20,563 Jesuits spread across the globe who engaged in a plethora of works of any kind with the objective of catering to the welfare of the people with the ultimate aim of “Ad Majorem De Gloriam” which means “for the greater glory of God.” and forming persons of Competence, Conscience, Compassion and Commitment (which are popularly known as the 4Cs of Jesuit education). There lies an existence of an inter-relationship among the crux values of Jesuit education in every context, whether be it, charity or education or any other work. The underlying values remain ever constant albeit the topics and texts changing. There is a need felt to talk about the 21st century virtually-enhanced

world, which has been driven by rapid proliferation of technology and other developments. In this light, it is

highly relevant to talk about the landscape of education which has also witnessed wholesome changes. In the current technologically empowered era, teaching-learning processes have been successfully blended with ICTs (Information and Communication Technology) which helps in the dissemination of content, thereby, aiding student learning and classroom development and hence bolsters student-teacher interactions as well as fosters the teaching-learning process. At present, the challenge for Jesuit Higher Education Institutions lies in instilling a “depth of thought and imagination” in the students that is expected to encompass engagement with the reality of the world and human conditions. Prodigious challenges for such institutions also emerge while leveraging technological tools to enhance learning and putting them to purposeful use both inside and outside the classroom environment. There has been a growing need felt for lifelong learning in a non-linear world, there are various needs and expectations among the “student consumers”, the fulfilment of which is an arduous task and developing skills and competencies among students other than academic related skills are the basic challenges for Higher Education Institutions (We Forum, 2019). While education in the Jesuit tradition has stemmed from the spiritual exercises of St. Ignatius and teachings of the early educators belonging to the Society of Jesus,

**“While education in the Jesuit tradition has stemmed from the spiritual exercises of St. Ignatius and teachings of the early educators belonging to the Society of Jesus, the Ignatian Pedagogical Paradigm (IPP) is a relatively new depiction of Jesuit teaching values which was developed by the International Commission on Apostolate of Jesuit Education (Society of Jesus) in the year 1993.**

the Ignatian Pedagogical Paradigm (IPP) is a relatively new depiction of Jesuit teaching values which was developed by the International Commission on Apostolate of Jesuit Education (Society of Jesus) in the year 1993.

## TYPE OF EXPERIENCE

Following are the various types of experience that students are expected to gain from the Best Practices stemming the current infrastructural facilities available in the college.

## BEST PRACTICES TOWARDS ACADEMIC EXPERIENCE AIMED AT PEDAGOGICAL INNOVATION

St. Xavier’s College firmly believes in giving the best quality education to its students and hence, leaves no stone unturned in presenting the best classroom



environment to its students along with several other facilities which further makes the process of education facilitation smooth and efficient.

## BEST PRACTICES TOWARDS EXTRA-CURRICULAR EXPERIENCE AIMED AT PEDAGOGICAL INNOVATION

**Table 2: Pictorial Representation of Academic Oriented Best Practices**

| Facility  | Description   |
|---|---|
| <b>Large sized Lecture Rooms</b>                        | These lecture rooms capable of accommodating a large number of students without cramping surrounded by wide corridors enabling free movement of students and teachers.  |
| <b>Smart Classrooms</b>                                 | These facilitate lectures along with multimedia devices of information and communication technology like projector, sound systems, desktops, mic, internet, etc.<br>It is the fulcrum of all academic activities and research studies. It is an academic hub having a rich collection of around 69,000 books, old and rare books, valuable reference books, journals, educational CDs/DVDs and innumerable e-books, e-journals, and other resources for the use of its members. |
| <b>Fr. Verstraeten Central Library</b>                  | It is a hub of precious collection of old books, periodicals, plates and maps, mission documents and many other such collections dating back to more than 500 years.  |
| <b>Goethals Indian Library and Research Society</b>     | The vast space and facilities available support additional lecture classes held especially those which require the use of ICTs.   |
| <b>Computer Centre and Central Computing Facilities</b> | It has deferent instrumental facilities like – 800C Deep Freeze, Spectrophotometer, Water treatment plant, Water Analyzer, Stereo Microscope etc. It primarily provides advanced research facilities to different Departments and there by fosters inter-disciplinary research.   |
| <b>Central Research Facility</b>                        | St. Xavier's College has highly equipped Physics, Chemistry, Statistics, Computer Science, Microbiology and Biotechnology Labs.   |
| <b>Laboratories</b>                                     | The mission of the Finance Lab is to support advanced applied research in financial markets and equip Commerce and Management students with the mathematical and conceptual theories and best practices in financial markets that go into the creation and management of innovative financial products.   |
| <b>Finance Laboratory</b>                               | SXC Cyber Room is equipped with high speed (4MBPS Leased Line) internet Connectivity. The services are available to the students as well as staff of the college.   |
| <b>Cyber Room</b>                                       | There are a number of cubicles or small sized enclosure for student-teacher interaction with desktops and high speed internet connections. Such facilities are available in a Central Hall, Library and B.Ed departments of the college.  |
| <b>Cubicles</b>   |   |

The below mentioned are some of the exquisite infrastructural facilities outside the ambit of academics and research which aim at bolstering the academic facilities along with giving the students immense scope for self-development, thus, catering to the 360

**Table 3: Pictorial Representation of Best Practices oriented towards Extra-Curricular Activities**

| Facility  | Description   |
|---|---|
| <b>Two Playgrounds, Basketball Court, Indoor Games Room and Gymnasium</b> | Available within campus to support leisure time of students. A host of games and events supported.<br>It is a spacious auditorium supporting various cultural programs and many other academic oriented and skill development seminars, workshops, management development programs and faculty development programs where a plethora of academic as well as cultural programs are held every now and then.  |
| <b>Fr. Depelchin Auditorium</b>   | It is to help the students as well as staff of the college to keep up with the stress of their daily living, psychological counselling is offered by counselor appointed by the college   |
| <b>Counselling Cell</b>   | A food gallery where healthy and hygienic food is served. It is a hub of informal meetings by students while enjoying mouth-watering delicacies. The canteen also has a splendid LCD television equipped with cable facility where often news and sports are played.  |
| <b>St. Xavier's College Canteen</b>                                       | Hostel accommodations are available for both boys and girls of St. Xavier's College, Kolkata. The hostel is located just 10 minutes away from the college campus.   |
| <b>Fr. Leeming's Twin Hostels</b>   | The purpose of this venture is to serve the staff and students better by making stationary and other personalized items particularly eco-friendly items available within the campus.  |
| <b>Fr. Joris Corner</b>   | It creates a platform where students are recruited by major companies all across India. Starting from 2003, a large number of students have been placed in some reputed companies with a good pay scale.  |
| <b>Placement Cell</b>   | It provides consultancy services to public and private sector organizations and international bodies. It seeks to offer a wide range of services starting from preparation of feasibility reports and project appraisals in areas of finance, accounts, audit, marketing, human resource management, computer science, physics, biotechnology, microbiology and statistics.   |
| <b>Consultancy Cell</b>   | The aim of this committee is to provide its students a sense of security regarding ragging of any kind as well as strict actions taken against sexual harassments.  |
| <b>Anti-Ragging Committee</b>   | It is an initiative to inculcate organizational, developmental and managerial skills into aspiring entrepreneurs and provide them with a platform to nurture their creativity and transform it into reality.  |
| <b>Entrepreneurship Development Cell</b>                                  | As a Christian Minority Educational Institution, St. Xavier's has been very much keen to provide services to the educational and cultural needs of the Minority community along with other caste, creed and Nationality. The Minority Cell basically helps minority students including Christian, Muslim, Jain, Buddhists etc. by working in conjunction with AICUF where the major purpose is to bring the students of minority community at par with the main stream student body.  |
| <b>SC/ST Minority Cell</b>  | Formerly known as Students In Free Enterprise (SIFE), is an international non-profit organisation in 39 countries around the world and has over 70,000 students as active members. Enactus St. Xavier's College, brings together a diverse network of university students, academic professionals and industry leaders around the shared mission of creating a better and a more sustainable world by working at the intersection of social innovation and social equality to make a difference across a variety of globally pressing issues. |
| <b>ENACTUS</b>  | A Yoga centre is available which in the Department of Education. The Yoga room with its soothing ambience and well-maintained floors, simple decor, along with the generous provision of Yoga mats, enables students to gain coordination of mind, body and soul. Professional guidance by trained instructors helps students refresh themselves.   |
| <b>Yoga Centre</b>  |   |

## BEST PRACTICES FOR GAINING AN EXPERIENCE TOWARDS SOCIETY AIMED AT IGNATIAN PEDAGOGY

A plethora of activities which have been primarily aimed at the integral formation of students and make a contribution to the society at large.

**Table 4: Pictorial Representation of Best Practices towards Society**

| Facility                       | Description  |
|--------------------------------|--|
| <b>Sports Committee</b>        | The Sports Department worked towards preparing formidable teams for prestigious Inter College tournaments. An action packed department with very little breathing space engaging itself in College Team practices and matches, Inter-Department tournaments and other extension activities.  |
| <b>National Service Scheme</b> | The Department strives to mould the young minds of students and instil in them a sense of responsibility towards the society at large. It also contributes towards the Jesuit mission of 'creating men and women for others.' The students are motivated to participate actively in the programmes organised by the NSS unit. Health check-up camp, blood donation camp are organised every year. NSS actively and regularly visit the various villages adopted by the College.  |
| <b>National Cadet Corps</b>    | National Cadet Corps (NCC) is the largest youth organization of the country. It is a tri-service organization comprising of the Army, Navy and Air Force, engaged in grooming the youth of the country into disciplined and patriotic citizens. St. Xavier's College NCC acts under 20 Bengal Battalion NCC as its 6th company. It is a combined company, giving equal opportunities to both girls and boys, and having strength of 160 students from various departments. Regular parade sessions are conducted in the college grounds and Fort William.  |
| <b>AICUF</b>                   | The All India Catholic University Federation (AICUF) is a university students' movement which began in 1924 by the Jesuit Fathers. Today, it is an all India movement with a membership of 30,000 students in 12 States. The AICUF works through university students, who as a team want to do something for their own growth and the welfare of the society in which they live. Through social action, AICUF aims to subvert structures of injustice in our society and our world.  |
| <b>Unnat Bharat Abhiyan</b>    | The College was selected as a Participating Institution (PI) under Unnat Bharat Abhiyan in October 2018 and works in some of the villages located in South 24 Parganas. The mission of UBA is to enable participating higher educational institutions to work with people of rural India in identifying development challenges and evolving appropriate solutions which will contribute towards sustainable growth of the partner communities. St. Xavier's College, Kolkata through knowledge transfer as well as community mobilization will bring sustainable rural development in these selected villages. |
| <b>Student Council</b>         | St. Xavier's College (Autonomous), Kolkata is famous for its rich student council committee which is headed by a group of teachers and ultimately lead by the Principal of the college. The committee is very proactive and keeps on organizing various eye-twitching events of cultural and social importance.  |

## BEST PRACTICES ENTIRELY TOWARDS TEACHING-LEARNING EXPERIENCE AIMED AT IGNATIAN PEDAGOGY

St. Xavier's College, Kolkata believes not only in giving its students a rich quality education but also strives to practice the best activities and methods in the process of teaching and learning to educate the students in a more comprehensive way ameliorating their cognizance levels, bolsters their understanding of the lectures smoothly, introduces them as well as teachers to new tools of ICT (Information and Communication Technology) but overall emphasizing to improve the quality of education. Below are some

**Figure 1: Pictorial Representation of Best Practices for teaching and learning process**

- Use of wireless mic and good quality sound speakers inside lecture rooms to be more audible to the students
- Use of PowerPoint presentations with the help of projectors and laptops to better present the lecture notes.
- Practical classes like statistical packages, Microsoft Office programs like Excel, Word, Power Point, etc., held inside computer laboratories or other smart classes which are well equipped with computer and internet settings. Practical classes which include experimental activities particularly in Science are practiced in individual department laboratories which are equipped with all needed machines, equipment and apparatus.
- Smart Classes and Laboratories are air-conditioned to give students and teachers a pleasurable environment of learning and teaching especially during the hot and humid months.
- Remedial Classes provided by the teachers to those students who have difficulty in understanding the topic.
- Seminars held on weekly basis on the topics which are taught in the class where students engage in interactive discussions with each other and also with the teachers.
- Relentless strive to introduce more Post Graduate courses in the college as well as more courses in the Ph.D. Program. The college is persistently trying to excel in the domain of research activities.
- Academic guidance available on NET/SET Guidance Centre which serves as a significant department in helping students prepare for and successfully crack their NET/SET examinations which is an examination of eligibility to qualify as an Assistant Professor for teaching in colleges across states and in India.

of the best practices undertaken by St. Xavier's College inside the classroom atmosphere to make the teaching-learning process more congruent, alluring and effective, which has been depicted in the form of a figure.

## BEST PRACTICES ENTIRELY IN TEACHING-LEARNING EXPERIENCE DURING THE 'NEW NORMAL'

After the ugly aftermath of Covid-19 Novel Coronavirus, where all sectors were jolted, education was also severely affected. To keep education afloat during these testing times, St. Xavier's College (Auto-

nomous), Kolkata has been ahead of other colleges in successfully keeping the teaching-learning process upbeat by online mode of teaching process. Students had also appeared for the examination at the end of the semester via online mode and evaluations have also been done successfully.

## BEST PRACTICES FOR GAINING AN EXPERIENCE TOWARDS ENVIRONMENT AIMED AT IGNATIAN PEDAGOGY

Few head-turning practices adopted and implemented by the college to make their resources more efficient, to respond to the current challenges of the environment in terms of sustainability and remain at the forefront in the context of technological and green innovation.

**Clean Green Campus:** St. Xavier's College in collaboration with Kolkata Police and Kolkata Municipal Corporation initiated Green Neighbourhood in 2011

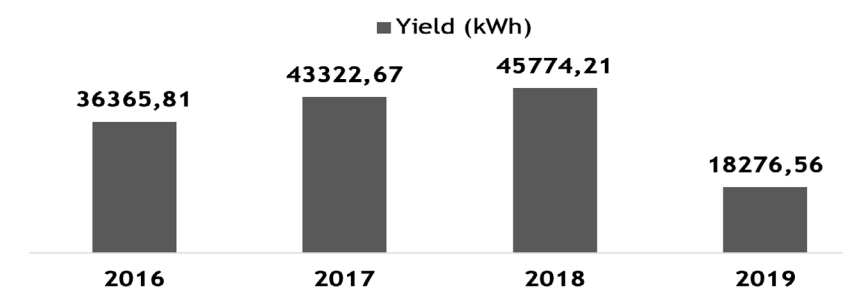
wherein students not just keep the campus clean but also the neighbourhood. Since then, bi-weekly, the students go about cleaning the campus and its surrounding areas. They create awareness in and outside the campus through street plays about the ill effects of plastics and dissuade them

from using them.

**Ecological Initiatives:** A number of head-turning green initiatives undertaken and practiced by St. Xavier's College, Kolkata aiming at Sustainability.

● **Solar Power Plant:** Envisaged primarily as an integral component of the deep-rooted concern of the Jesuits towards pro-environmental undertakings, a 3031.12-squarefeet solar power plant with 46-KWp installed capacity was instated at the roof of the B. Ed. and Central Library Building in the Park Street campus of St. Xavier's College, Kolkata. There are an aggregate of 176 multicrystalline Photovoltaic solar panels (PV panels), each with a wattage of 262W. As a rudimentary part of the environmental responsibility of an educational institution, the current solar initiative at St. Xavier's is aimed at offsetting the adverse effects of carbon emission through the adoption of green, sustainable and perennial solar power.

**Figure 2: Aggregate Yield of Solar Plant at St. Xavier's College, Kolkata (January 2016 - April 2019)**

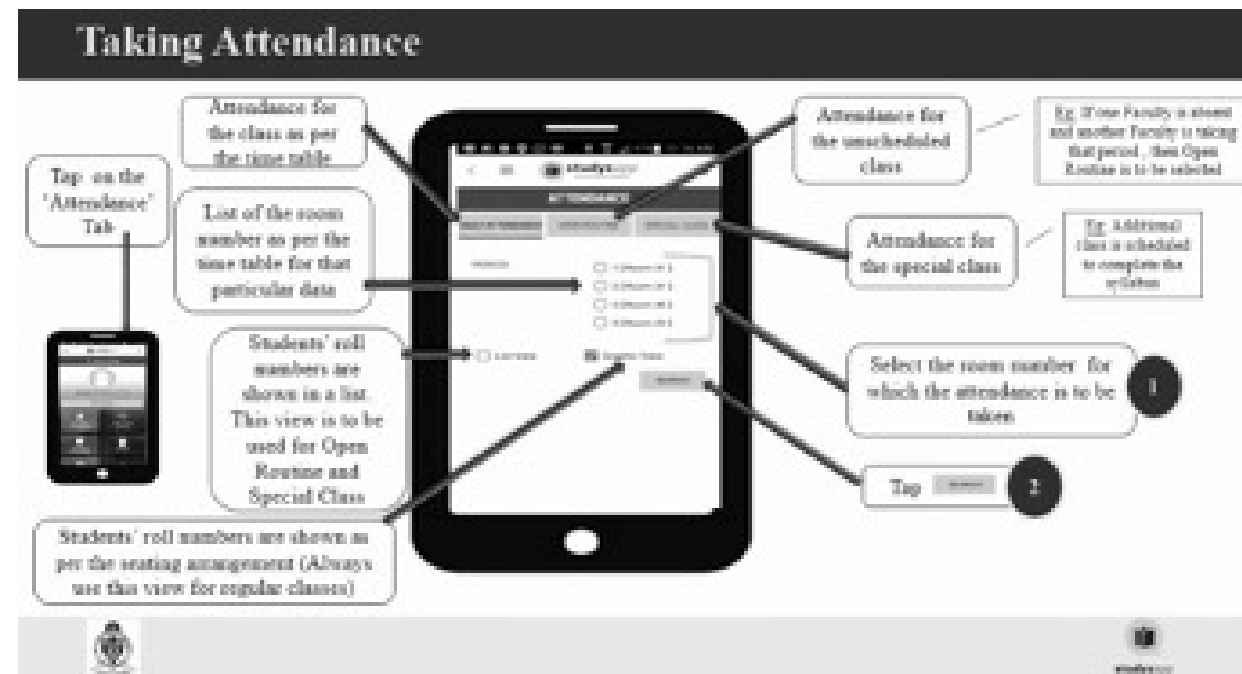


● **Rainwater Harvesting:** St. Xavier's College, Kolkata has also implemented a rainwater-harvesting project as a key component of its contribution to the various green initiatives. The facility has been installed below the green benches located on the ground floor of the Jubilee Building located in the college for storing rainwater. The water is captured on the roof and transported to an artificial tank situated underground. An underground tank has been constructed that has a pre-installed capacity of storing up to 80,000-litres of water. The total dimensions of the tank is 60 feet x 15 feet. The facility, which has been in existence for over a decade, captures rainwater in an effective manner and this water is used exclusively to water the field, using a pump, especially during the summer months.

● **Green Energy Initiative:** St. Xavier's College, Kolkata has also undertaken an eye-twitching measure to mitigate its carbon footprint by integrating digital technology in its academic affairs. The Departments of Commerce (Morning) as well as Management Studies have introduced an online android-based attendance system for students named 'Studyzapp', enables the professors to record student-attendance through a mobile application. The college administration is authorized to update the attendance records based on the existing rules and

regulations where each faculty of both departments are provided with personalized user identification keys and passwords along with a hand held Tablet as a device to record the attendance.

**Figure 3: The Digital Application for Recording Attendance of Students (Source: Studyzapp)**



## BEST PRACTICES TO GAIN EXPERIENCE TOWARDS SUSTAINABLE DEVELOPMENT GOALS (SDGS) AIMED AT IGNATIAN PEDAGOGY

Below are some noble practices undertaken by St. Xavier's College (Autonomous), Kolkata in the ugly aftermath of Covid-19 Novel Coronavirus. St. Xavier's amidst the global pandemic has shown its talisma-

nic commitment to attain sustainability The nexus of Sustainability and Best Practices is evident in those myriad ways which has helped the hallowed institution fulfil the true meaning of Jesuit goal, i.e.

to serve the society at a difficult time period whilst persistently adhering to the safety protocols and norms of social distancing. The below mentioned diagram is a depiction of a plethora of sustainable initiatives which has been implemen-

ted by St. Xavier's College, Kolkata in the post pandemic period. These noble causes not only caters to the students and employees of the hallowed institute but also outside people who are underprivileged and emphasizes on the overall sustainability of the environment in the long haul. In fact, almost all the kind works performed by St. Xavier's College, Kolkata has been ably supported by its Alumni Association.

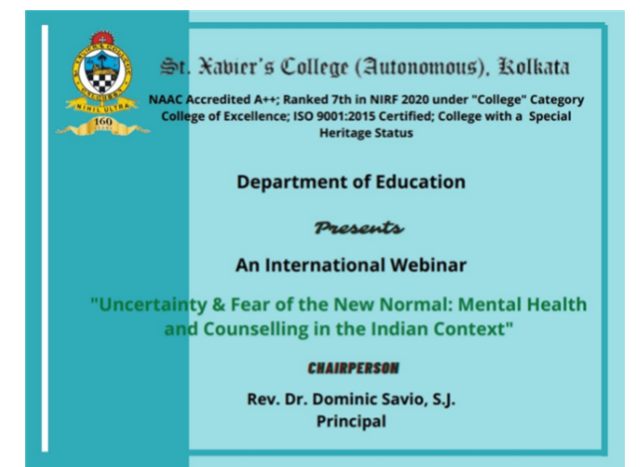
## The Telegraph



**Exhibit 1: Distribution of Free Ration and PPE Kits on Good Friday**



**Exhibit 2: Adoption of a village in West Bengal destroyed by a super cyclone**



**Exhibit 3: Webinar held on Mental Health and Counselling**

# The Telegraph

## Xavier's donates to CM's corona fund

Francis Bernard, St Xavier's, Kolkata, has donated 300 pieces of PPE kits to the West Bengal Chief Minister's Corona Fund. The donation is for the relief work in the state.

**Exhibit 4: Donation towards West Bengal Chief Minister's Corona Fund**



**Exhibit 5: Relief work provided in Kakdwip and Sundarbans**



**Exhibit 6: Distribution of 300 PPE Kits of Doctors and Nurses**

St. Xavier's College (Autonomous), Kolkata offers as many as 21 Under Graduate Courses in 7 major disciplines which include 8 courses in Science, 5 courses in General and Language, 4 courses in Arts and 1 course each in Multimedia & Animation, Mass Communication, Management and Commerce. The Commerce Department further has two separate shifts B.Com (Morning) and B.Com (Evening). The college also supports as many as 9 Post Graduate courses across 4 disciplines which include 4 from Science, 3 from Arts which has been introduced recently (2020) during the excruciating times of Covid-19 and 1 course each from

Multimedia & Animation and Commerce. The college also supports offers Ph.D. courses in Physics, Biotechnology and Microbiology in

the Science department and Accounting & Finance and Management in the Commerce department. The college also supports 10 courses in Career Oriented Programs and 3 courses in Diploma and Certificate Programs. All the above mentioned programs have been represented in the form of two tables which have been depicted below. The first table is a representation of the crux academic courses offered whi-

le the second table is a representation of the career oriented/diploma and certificate courses.

## CONCEPTUAL FRAMEWORK (RESEARCH MODEL AND HYPOTHESIS FORMULATION)

Albeit, the IPP can be applied to various aspects of educational process, it is important to know that IPP is not method of teaching but an outline of course design that helps to ask questions about the involvement of students in the content and the meaning they ascribe to their learning. The IPP has been depicted in the form of a diagram represented below. The diagram has been considered as a research model for the present study, which has been rejigged by inter-linking the 5 dimensions of IPP with best practices which is expected to have a bearing on the students.

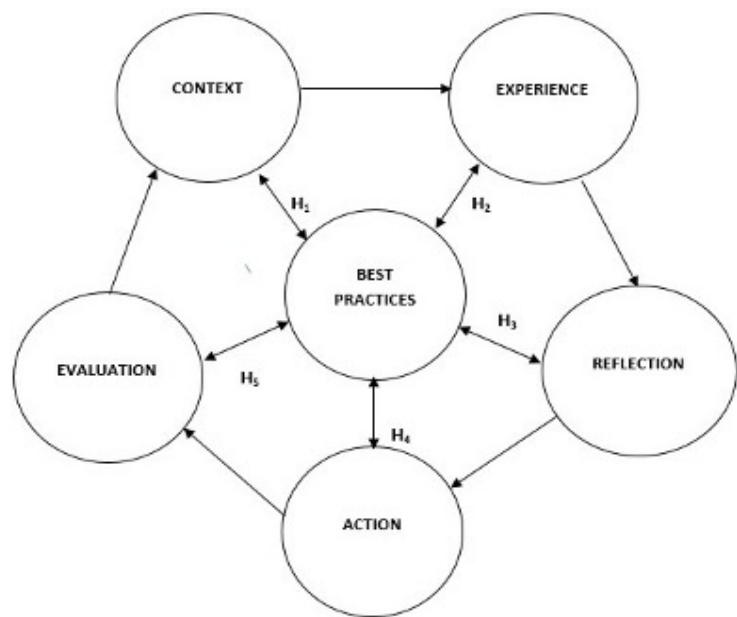
**Table 5: Core Academic Courses offered by St. Xavier's College**

| Facility   | Description   |
|--|---|
| Two Playgrounds, Basketball Court, Indoor Games Room and Gymnasium | Available within campus to support leisure time of students. A host of games and events supported.  |
| Fr. Depelchin Auditorium   | It is a spacious auditorium supporting various cultural programs and many other academic oriented and skill development seminars, workshops, management development programs and faculty development programs where a plethora of academic as well as cultural programs are held every now and then.  |
| Counselling Cell   | It is to help the students as well as staff of the college to keep up with the stress of their daily living, psychological counselling is offered by counsellor appointed by the college  |
| St. Xavier's College Canteen                                       | A food gallery where healthy and hygienic food is served. It is a hub of informal meetings by students while enjoying mouth-watering delicacies. The canteen also has a splendid LCD television equipped with cable facility where often news and sports are played.  |
| Fr. Leeming's Twin Hostels   | Hostel accommodations are available for both boys and girls of St. Xavier's College, Kolkata. The hostel is located just 10 minutes away from the college campus.   |
| Fr. Joris Corner   | The purpose of this venture is to serve the staff and students better by making stationery and other personalized items particularly eco-friendly items available within the campus.  |
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| Entrepreneurship Development Cell                                  | It is an initiative to inculcate organizational, developmental and managerial skills into aspiring entrepreneurs and provide them with a platform to nurture their creativity and transform it into reality.  |
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| ENACTUS  | Formerly known as Students In Free Enterprise (SIFE), is an international non-profit organisation in 39 countries around the world and has over 70,000 students as active members. Enactus St. Xavier's College, brings together a diverse network of university students, academic professionals and industry leaders around the shared mission of creating a better and a more sustainable world by working at the intersection of social innovation and social equality to make a difference across a variety of globally pressing issues. |
| Yoga Centre  | A Yoga centre is available which in the Department of Education. The Yoga room with its soothing ambience and well-maintained floors, simple decor, along with the generous provision of Yoga mats, enables students to gain coordination of mind, body and soul. Professional guidance by trained instructors helps students refresh themselves.   |

**Table 6: Career Oriented Programs/Diploma and Certificate Courses offered**

| Career Oriented Programs                     | Diploma and Certificate Programs                      |
|--|---|
| Machine Learning and Artificial Intelligence | Certificate Course in Human Rights and Social Welfare |
| Logistics Supply Chain Management            | Certificate Course in French Language                 |
| Human Resource Management                    | Diploma in Multimedia Animation                       |
| Mass Communication and Public Relations      |   |
| Marketing and Sales                          |   |
| Integrated Marketing Communication           |   |
| Certified Accounts Professionals             |   |
| N.S.E. Certified Capital Market Professional |   |
| Foreign Trade Practices and Management       |   |
| Tax Practices and Procedures                 |   |

**Figure 4: Proposed Research Model**



Before getting headway with our hypotheses, we shall discuss very briefly about the 5 characteristics or dimensions of the Ignatian Pedagogical Paradigm. The 5 dimensions have been represented below in the form a figure.

**Table 7: Representation of the 5 characteristics of the Ignatian Pedagogical Paradigm**

| Characteristic | Description   |
|----------------|---|
| Context        | Description of the students and where teaching and learning takes place |
| Experience     | Response leading to cognitive, affective and global approach            |
| Reflection     | Capturing on the experience gained and preparation for decision making  |
| Action         | Action which follows from learning                                      |
| Evaluation     | Measurement of the impact and effectiveness of the entire process       |

**Table 8: Depiction of Hypothetical Statements**

|                |   |
|----------------|---|
| H <sub>1</sub> | There lies a significant relationship between Context and Best Practices    |
| H <sub>2</sub> | There lies a significant relationship between Experience and Best Practices |
| H <sub>3</sub> | There lies a significant relationship between Reflection and Best Practices |
| H <sub>4</sub> | There lies a significant relationship between Action and Best Practices     |
| H <sub>5</sub> | There lies a significant relationship between Evaluation and Best Practices |

## OBJECTIVES

- To explore the challenges faced by Jesuit Higher Education Institutions in the current scenario.
- To highlight the best practices adopted and implemented by St. Xavier’s College, Kolkata.
- To examine and analyze the perception of the students of St. Xavier’s College towards the best practices undertaken by the college.

## DATA AND METHODOLOGY

Secondary data sources have been used to build a base for the theoretical foundation of the current research endeavour. A host of websites about Jesuits and Jesuit education has been accessed to gain a robust understanding of the topics. Various other information regarding St. Xavier’s College (Autonomous), Kolkata has been collected from the database of the college repository. Such facts and figures have been put forward in the form of tables and pictures. For the purpose of primary

data collection, we have framed a close-ended questionnaire consisting of 10 questions spread across the 5 dimensions of Ignatian Pedagogical Paradigm to collect responses of exactly 200 students of St.

Xavier’s College, Kolkata. The students surveyed are either undergraduates or post-graduates across disciplines in the age group of 18-23 years of age. All the questionnaires were mailed to a total of 200 students of the college. A Five-Point Likert scale has been used to measure the concepts. The data obtained has been processed through IBM’s SPSS 23.0.

## RESULTS OBTAINED

**Table 9: Representation of Descriptive Statistics**

| Demographic Construct  | Classification | Population Statistics | Percentage  |
|------------------------|----------------|-----------------------|-------------|
| Gender                 | Male           | 116                   | 0.58        |
|                        | Female         | 84                    | 0.42        |
|                        | <b>TOTAL</b>   | <b>200</b>            | <b>1.00</b> |
| Age                    | 18 years       | 10                    | 0.05        |
|                        | 19 years       | 25                    | 0.12        |
|                        | 20 years       | 30                    | 0.15        |
|                        | 21 years       | 39                    | 0.19        |
|                        | 22 years       | 51                    | 0.26        |
|                        | 23 years       | 45                    | 0.23        |
|                        | <b>TOTAL</b>   | <b>200</b>            | <b>1.00</b> |
| Educational Attainment | Under Graduate | 104                   | 0.52        |
|                        | Post Graduate  | 96                    | 0.48        |
|                        | <b>TOTAL</b>   | <b>200</b>            | <b>1.00</b> |

From the above mentioned table, we can see the

proportion of male and female students in our study who are distributed at 52% and 48% respectively. We also evidence the number of students of varied spread across the 5 dimensions of Ignatian Pedagogical Paradigm to collect responses of exactly 200 students of St. Xavier’s College, Kolkata. The students surveyed are either undergraduates or post-graduates across disciplines in the age group of 18-23 years of age. All the questionnaires were mailed to a total of 200 students of the college. A Five-Point Likert scale has been used to measure the concepts. The data obtained has been processed through IBM’s SPSS 23.0.

We have conducted a multiple regression test to test the association of strength between the different dimensions of IPP and best practices. This has been done to probe into one of the most important objective of our study which is to examine and analyze the perception of students regarding the best practices undertaken by St. Xavier’s College (Autonomous), Kolkata by testing the five hypotheses (H1, H2, H3, H4, H5).

As we can see from the table above, the value of R square indicates that the all predictors explained 74.2% variations in Best Practices. This explains the rationality of the model. From the table, it is evident that the

most significant predictor was the characteristic of

**Table 10: Representation of Regression Test**

| Model Summary |                   |          |                   |                        |
|---------------|-------------------|----------|-------------------|------------------------|
| Model         | R                 | R Square | Adjusted R Square | Std. Error of Estimate |
| 1             | .790 <sup>a</sup> | .742     | .708              | .72683                 |

a. Predictors (Constant), Cxt, Exp, Ref, Act, Evt

| Coefficients <sup>a</sup> |                             |            |                       |       |      |
|---------------------------|-----------------------------|------------|-----------------------|-------|------|
| Model                     | Unstandardized Coefficients |            | Standard Coefficients | t     | Sig. |
|                           | B                           | Std. Error | Beta                  |       |      |
| 1 (Constant)              | .389                        | .196       |                       | 1.769 | .086 |
| Cxt                       | .749                        | .059       | 0.692                 | 7.673 | .000 |
| Exp                       | .705                        | .051       | 0.628                 | 6.768 | .000 |
| Ref                       | .671                        | .072       | 0.617                 | 9.545 | .000 |
| Act                       | .684                        | .063       | 0.587                 | 7.932 | .000 |
| Evt                       | .612                        | .042       | 0.612                 | 5.429 | .000 |

a. Dependent Variable: Best Practices

**Table 11: Reliability Statistics for All Variables (n=10)**

| Cronbach's Alpha | Cronbach's Alpha based on Standardized Items | N of items |
|------------------|--|------------|
| 0.787            | 0.787  | 10         |

Context which had the most significant and positive impact on Best Practices, with its standardized coefficients being ( $\beta=0.692$ ) followed by Experience, Reference, Evaluation and Act as per their respective standard coefficient values. We also observe that the significance level of all the predictors (characteristics) are 0.000 ( $p<0.05$ ), statistically meaning that there exists a positive and quite a strong relations-

## LESSONS LEARNT

The 3 big questions put forward in our current case analysis have been answered with robust evidences. The first question emphasized on the various challenges faced by Jesuit Higher Education Institution in the nexus of academics and overall development of the students. In the current scenario a gargantuan

hip between all the characteristics and best practices.

A reliability statistics has also been conducted to check for the internal validity and consistency of the questions used in the questionnaire. The standardized value of Cronbach's Alpha is 0.6, meaning that any value obtained which falls below 0.6 would not fit perfectly in the questionnaire. By running the reliability test, it was found that the Cronbach's Alpha score were above the par score of 0.6 (here it was 0.812) which is robust enough thus, validating that all the 14 items fit perfectly in our questionnaire and support our proposed research model.

challenge for such institutions lie in educating students in the Jesuit way itself. Capturing the nous of students in the sense that making them think deep to encompass engagement with the practicality of the world and human conditions. Another prodigious challenge for Jesuit Higher Education Institutions lie in coping up with the changes and advent of technologies, especially those which foster pedagogical renovations and bolsters the Ignatian Pedagogy. Such institutions also face a herculean task of keeping up with the pace of various needs and expectations among its students, to make them more committed, competent and conscious along with instilling in them a splendid aspect of compassion to care for and serve the society. In other words, the goal of making its students "men and women for others" is a gruelling challenge faced by the Jesuit Higher Education Institutions. Students relentlessly strive to get hold of an institution that only provides them with the best quality education but they are also on the lookout for a comfy environment which fosters their learning as well as fulfil their other needs which are targeted towards extra-curriculum activities. Implementing such curriculum in an institution calls for travails and a Jesuit Higher Education Institution by successfully doing it will surely achieve the goal of Ignatian Pedagogy which is expected to benefit the students immensely helping them in their overall growth.

St. Xavier's College (Autonomous), Kolkata has undertaken myriad best practices which have been oriented towards academics, extra-curricular activities, society and environment. Its best practices especially during the ongoing times of the current global pandemic has been lauded all over. By doing so, it is actually serving the society and thus serving God which is one of the most crucial intentions of the Jesuits. All such practices have been highlighted in our endeavour. This answers our second question of the present case analysis.

Some of the other key findings of the present case are that innovative approaches undertaken by St. Xavier's College has enhanced student engagement, motivation and critical thinking, deeper reflection, higher level thinking and positive actions on decision making among students.

## OPPORTUNITIES FOR IMPROVEMENT

St. Xavier's College (Autonomous), Kolkata is a 161 year old institution which strives for excellence. The motto of the college is "Nihil Ultra" which means "nothing beyond." The aim of the college is to unshackle itself from the old traditional systems of education and to be pioneers and shepherds in academia, research and other non-academic activities as well. The college persistently is in the quest

for undertaking more innovative and best practices. But this is not an easy task considering the diverse nature of the students. Innovation in teaching and learning methods might sound good for the college but its efficiency is evaluated by teachers and particularly, the students who might be reluctant to embrace such innovative methods of teaching and learning. Say for example, if the world would not have been reeling under the Covid-19 pandemic and online teaching would have been introduced, students might have hesitated to an inexorable extent. Nevertheless, there exist immense opportunities for the college. One of the strength of the college is its green practices that supports sustainability and increases the efficiency of the college. Such green environmental practices has already been stated in our study. St. Xavier's College, Kolkata also organizes for frequent workshops, seminars and conferences aimed at faculties, scholars, and students of the college as well as those from outside the college. The college also organizes many faculty development programs to enhance the knowledge, skills, abilities and competencies of its teachers as well as participates with other Jesuit Higher Education Institutions for such endeavour. Such endeavours can be made more effective if present students who aspire to become teachers of tomorrow can be given a chance to organize and participate along with the teachers, thus enhancing their levels of consciousness, commitment and competence. St. Xavier's Co-

llege, Kolkata also engages in myriad social works oriented towards the marginalized and poor people, poor children, affected people, etc. Each and every student of the college should be encouraged to participate in such events so that they become more conscious about the realities of life and more compassionate towards the people and society hence, contributing towards the society not only in the present situation but also in the future. Such suggestions should be employed not only by St. Xavier's College, Kolkata but also other Jesuit Higher Education Institutions who would like to wholly educate their students with a blend of the 4C's of Jesuit education helping them become men and women for others who would not only accomplish their respective individual goals but also help to make a significant transformation in the society.

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## APPENDICE

### Questionnaire

Please answer all the questions by ticking in the appropriate boxes

*Likert Scale where 1=Highly Unimportant/Ineffective; 2= Somewhat Unimportant/Ineffective; 3=Neutral; 4= Somewhat Important/Effective; 5= Highly Important/Effective*

| Segment    | Questions  | 1 | 2 | 3 | 4 | 5 |
|------------|--|---|---|---|---|---|
| Context    | St. Xavier's College trust the students that they could be of potential value to the academic and non-academic curriculum of the college and various other endeavours associated with the college. |   |   |   |   |   |
|            | The environment provided by St. Xavier's College, Kolkata helps in making the various processes of best practices more convenient  |   |   |   |   |   |
| Experience | The experience gained increases the awareness of the students towards individual and global realities  |   |   |   |   |   |
|            | The practices undertaken by St. Xavier's College, Kolkata always has a positive effect on me   |   |   |   |   |   |
| Reflection | The reflected experience gained from the practices helps to become more practical in life and ready for decision making  |   |   |   |   |   |
|            | The best practices undertaken by St. Xavier's College, Kolkata is helping to analyze the course curriculum and capture the true meaning of Jesuit education  |   |   |   |   |   |
| Action     | The reflected experience gained triggers a permanent change in behaviour and approach  |   |   |   |   |   |
|            | The reflected experience helps to take a positive action towards individual goals as well as societal goals  |   |   |   |   |   |
| Evaluation | The evaluation processes practiced by St. Xavier's College, Kolkata helps to reflect on the process of action and learnt experiences   |   |   |   |   |   |
|            | The evaluation processes also helps to analyze the strengths and weaknesses and guide to take correct and different approaches   |   |   |   |   |   |

## The study of the social environment as an innovate active methodology in teaching Social Doctrine of the Church in Centro Universitário FEI

### ABSTRACT

This article is a report of my experience as a Church's Social Doctrine in Centro Universitário FEI (São Paulo, Brazil), using the study of the social environment as active methodology in teaching this discipline. One of the bases is the students doing a social action in a third sector institution, which they have to develop a support project according to social institution needs. The general objective was present an innovative way in how this knowledge of Church's Social Doctrine is explained and communicated of the students mentioning the strategy and achievements results. The study consists in my direct observation about the students' experiences and their testimony. I concluded that the methodology favors the students a social and a personal learning, once it encourages the action using all their set of skills to realize and gratitude experience which brings visible results to benefited entities and personal lives expanding social actions and professional exercise perspective.

### THE INITIATIVE

This article seeks to show the innovative way of this DSI knowledge, that aims to promote the reflection about economic, social, political and cultural reality in which people live in Brazil and in the world under the light of Gospel and Magisterium of the Church, using also the contribution of Human Sciences. The innovative way to communicate the DSI is through active methodology, which is based on ways to develop the learning process, using real or simulated experiences, aiming the solving conditions, with success, of the challenges arising the essential activities of the social practice in different contexts.

### GENERAL OBEJCTIVE

Present an **innovative way to explain the knowledge of Church's Social Doctrine** to students

#### SPECIFIC OBEJCTIVES

- ⊙ create conditions for the student **get in touch with the surrounding reality**
- ⊙ **develop skills** to observe, research, interview, collect, organize and systematize the collected data
- ⊙ promote the study of various aspects in a **direct way, objective and orderly**
- ⊙ **analyze** and get conclusions
- ⊙ provide the **acquisition of knowledge:** historical, economic, social, political, scientific, artistic; in a direct way through the lived experience
- ⊙ use **different ways to expression** to describe what was observed
- ⊙ favor the **integration of the various curricular components**, make the student understand, in an integrated way, the physical, economic, social, political and artistic facts, as they appear in reality

### THE METHODOLOGY

The methodology inserts the student in the face of a **situation in which their must acts as a professional**. And it allows them to know, get information and analyze various aspects of a specific environment and shows a logically structured sequence: situations that lead students to problematize their reality; strategies for the collection and analysis of acquired data from this reality; and development intervention actions in the studied context.

### RESULTS

- ✔ learn to **deal with situations and contexts complexities**
- ✔ **communicate efficiently** in written, oral and graphic forms
- ✔ make decisions and act in the light of an **ethical and humanistic framework**
- ✔ **analyze and understand the demand and users** of engineering and its context to ask questions and give solutions for the area in question.
- ✔ lead multidisciplinary teams, being able to **understand, respect and value differences**

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# The study of the social environment as an innovate active methodology in teaching Social Doctrine of the Church in Centro Universitário FEI

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### ABSTRACT

This article is a report of my experience as a Church's Social Doctrine in Centro Universitário FEI (São Paulo, Brazil), using the study of the social environment as active methodology in teaching this discipline. One of the bases is the students doing a social action in a third sector institution, which they have to develop a support project according to social institution needs. The general objective was present an innovative way in how this knowledge of Church's Social Doctrine is explained and communicated of the students mentioning the strategy and achievements results. The study consists in my direct observation about the students' experiences and their testimony. I concluded that the methodology favors the students a social and a personal learning, once it encourages the action using all their set of skills to realize and gratitude experience which brings visible results to benefited entities and personal lives expanding social actions and professional exercise perspective.



## 1. INTRODUCTION

The Centro Universitário FEI<sup>1</sup> has always been characterized by the intention to offer your students a solid humanistic background, fitting the technological and scientific contents of its courses. Due to its catholic identity and Ignatian inspiration, FEI has set its own mission as: “provide our students knowledge through all necessary ways, aiming the construction of a developed human fair society” (Retrieved January 30, 2021, from <https://portal.fei.edu.br/>).

Although this is not an exclusive role of any specific institution department (once those concerns should be integrated in any educational task performed) it has been traditionally linked to its Legal and Social Sciences Department. Indeed, is set to this sector a double-faced mission: a) contribute to the professional academic training (which is done through disciplines like Sociology, Law and Ecology); b) contribute to the human and Christian formation (through disciplines like Philosophy, Church’s Social Doctrine and Ethic).

In this context and departing of the conviction that the Church’s Social Doctrine (DSI in Portuguese initials) has the present and pertinent actual inputs, Centro Universitário FEI is introducing it as man-

1: Centro Universitário FEI is a Brazilian Christian college with Jesuit inspiration founded by Father Saboia de Medeiros in 1942, which offers graduation courses to engineering, business and computation science segments and also post-graduation for business and engineering. FEI has about 8.000 students and its campus are located in São Paulo and São Bernardo do Campo, a city in the Great São Paulo metropolitan area.

datory discipline for all the graduation courses. It is offered twice a year to the students from the third cycle of the course.

This content is introduced to the students through an active methodology, the environment study. For the engineering students of the daytime period, beyond the reflection activity done in the classroom, the methodology also stimulates the social action in a third party entity, in which the students should develop a support project to a social institution needs, with close connection to the content of the course.

According to Berbel (2011, p.29), “the active methodology is based on ways to develop the learning process, using real or simulated experiences, aiming the solving conditions, with success, of the challenges arising the essential activities of the social practice in different contexts”. Fini (2018) defines active learning methodology emphasize the student protagonist. The author also include that it is a broad process in which the main feature is the student insertion as the principal responsible for his/her own learning, committing with its level.

The active didactic, according to Mello, Neto and

Petrillo (2019), emphasizes methods and technics as teamwork, cooperative activities, individual study reflection and research methods, both in experience learning organization and methods selection. The student is stimulated to work in a single free way to watch, experience, create and execute, develop reflective and critical capability. Working with college students, learning through problematization and/or problem solving enables the active involvement of the students with their own professional formation process.

Following this model, the professor acts as a learning encourager and advisor, favoring the students’ participation. So, it is required the use of innovative strategies which are ruled by theoretical and practical relation and knowledge improvement based on the students’ previous experiences, using dialogical and reflexive practice on research teaching, improving the dialogue hall and the classroom learning (Leal, Miranda & Casa Nova, 2017).

Thus, this article aims to show the innovative way of this DSI knowledge is touched and shared to the students by the process of social environment studies, as the methodology assumption which guides my own actions, the strategy and contents of the

“*Following this model, the professor acts as a learning encourager and advisor, favoring the students’ participation*”

DSI course turned to Engineering students, also marking the difficulties and reached results.

## 2. THE DISCIPLINE CHURCH’S SOCIAL DOCTRINE AT CENTRO UNIVERSITÁRIO FEI

The discipline Church’s Social Doctrine (DSI in Portuguese initials) aims to promote the reflection about economic, social, political and cultural reality in which we live in Brazil and in the world under the light of Gospel and Magisterium of the Church, using also the contribution of Human Sciences.

The DSI seeks to identify judgment criteria and action principles which enable the actual complex reality facing, whose raised challenges by the cultural and religious pluralism and of moral options, request the personal and collective responsibility questioning the relation of nature, technic and moral. Although the discipline is based on the evangelical message, its goals are far from doctrinal: it’s based to propose the free reflection of the students to certain anthropological conceptions and explain its social consequences. Indeed, the Catholic Church understands the principles of its Social Doctrine has universal value and could also be shared by the

non-believer or the ones who are following different religious orientation. As far as it is based on human reason and natural law, one of the DSI basic positions is precisely the defense of religious and conscience freedom, understood as essential factor to the build a more fraternal and fairer social live.

The discipline of Church's Social Doctrine starts on the unconditional defense of human person, his/her dignity going through all concrete circumstances of life as the conditions of live in family, in education, at work, country and in the world. It proposes equally a reflection about the State and society nature, starting the foundation of human rights, the subsidiarity and solidarity principles, highlighting the role the social entities perform to the fortification of social creative and freedom, as the political activity value in favor of the justice implantation.

### 3. THE SOCIAL WORK AS A TEACHING TOOL AT THE UNIVERSITY

To promote a reflection about the Church's Social Doctrine content and your application in the same moment, the discipline encourages the students to do a solidarity action project in the third sector. This practical work is developed in stages that happen during all semester.

It is important emphasize the understanding of how a social institution works and realize an action project to support this institution, it is an important part of the discipline Church's Social Doctrine. This is not a complementary action or just an illustrative action about some topics covered in the discipline, as human rights or solidarity, but one of the stages that support the course.

As already mentioned, this action is part of the active methodology of the social environment studies. The social environment studies are an interdisciplinary strategy applied to the teaching of several areas, such as Geography, History, Law, Medicine, Social Sciences, among others, in a perspective that works with concepts and skills to perceive situations and make decisions. The methodology inserts the student in the face of a situation in which their must acts as a professional. And it allows them know, get information and analyze various aspects of a specific environment and "shows a logically structured sequence: situations that lead students to problematize their reality; strategies for the collection and analysis of acquired data from this reality; and development intervention actions in the studied context". (Lopes & Pontuschka, 2009, p.43). The social environment study has as a fundamental step the fieldwork, through which it is possible to realize a movement of plural apprehension and embracing of the physical environmental, historical, cultural,

environmental and economic. (Sutil, Freitas, Luciano & Bitencourt, 2017).

These same authors still emphasize that the objectives of using the social environment studies as a didactic strategy are: to create conditions for the student get in touch with the surrounding reality, promoting the study of various aspects in a direct way, objective and orderly; provide the acquisition of knowledge, historical, economic, social, political, scientific, artistic, in a direct way through the lived experience; develop skills to observe, research, interview, collect, organize and systematize the collected data; analyze and get conclusions; use different ways to expression to describe what was observed; favor the integration of the various curricular components, make the student understand, in an integrated way, the physical, economic, social, political and artistic facts, as they appear in reality. The social environment studies involve the exploration of the collected materials, from these data it is realize a synthesis and exposure of the results involving the systematization of the information obtained and recorded as well as the impressions and reflections of the participants.

2: The choice of an institution is free so there are certain number of options: daycare centers, nursing homes, homeless shelters NGO's, special needs and drug addicted home, etc. Normally the chosen institution located near the FEI campus, the students homes or they are institutions that the students have previously relationship. About 250 students are part of the initiative each half of year – they are 50 groups acting in 50 different entities. In some cases, more than one group acts in the same institution but in a different project. The projects need to be approved by the institution and are always guided by the discipline teacher.



***The social environment studies are an interdisciplinary strategy applied to the teaching of several areas [...] in a perspective that works with concepts and skills to perceive situations and make decisions***

So, in the first class of the course, the students are invited to split into small groups (from 4 to 6 students) and receive the activity script, with the objectives, instructions and deadlines.

Each group must identify and freely choose a third sector institution<sup>2</sup>. Initially the groups must visit the chosen institution and do a field research (see appendix A) - and this is one of the fundamental stages of the social environment studies. With this research it is intended to know more systematically the way how men and women in a determinate space and time organize their experience, understand their needs, their desires and their struggles with victories and failures. Thus, during fieldwork, the students must immerse themselves in the entity's daily life.

To facilitate the field research, the groups receive a form with the main information to be obtained.

The initial objective is to know the institution, how it works, the service provided, its service capacity, daily life, history, values, the revenue, its relationship with the State, and its main needs. It should be noted that although the students have to obtain some information through this set of questions, there is an opportunity for students ask questions about other points during the conversation, bringing some spontaneity and creativity of both interviewers and interviewees. The students are also encouraged to collect this data through photographic records, filming, possibly documents in different formats and notes.

Besides, it is part of this step not only to ask the person responsible of the entity about the main problems but observe carefully what is

ahead of them. Collected all data and identified the main problems of the entity, the group must need to discuss internally and choose which difficulty it would like to act in order to try to solve it.

Then, the students must to prepare and formalize a project - which answers fully or partially the problem or need identified - with objectives, justification, material and human resources necessary and timelines. After submitted and approved by the tea-

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***The initial objective is to know the institution, how it works, the service provided, its service capacity daily life, history, values the revenue, its relationship with the State and its main needs.***

cher, the group of students presents the proposal to the institution and, being also approved by it, set a date to start the implementation of the project. The students have about 3 months to put their ideas into practice.

The solidarity action projects are developed in two steps: service provision external to the entity and within the entity itself. Some examples of initiatives that students take: participation in events, bazaars, furniture renovation, painting of rooms, collection campaigns of cleaning products and food, organization of events or cultural and recreational activities for children, teenagers, elderly, etc.

After the 3 months to implement the project, each group presents to the other colleagues, in class, the institution that choose - with the data get in the field research -, the needs focused, the project developed, and the results achieved. In this presentation, created by audiovisual resources, usually the groups also tell about their difficulties, attempts, show empirical data, photos and videos, if the result was satisfactory or not, what could be improved, if they would do something different, some important difficulty during the project etc. It is also the moment where

each one tells about the project and their personal experience.

The analyses about the social environment studies involves the production of reports used for discussion in a seminar way, photographs exhibition, videos exhibition taken at the institution, presentation about the subject seen during the lived experience, photographic exhibition reflecting the situations experienced the environment studied, among other ways of assessment. Because of that, each group must deliver a written report regarding the procedures of the steps realized and a reflective text about the place visited. In this report, there should be an introduction, contextualizing the entity's subject in that reality<sup>3</sup>, the project itself, exploring the most significant points of the visit and the observations containing the photos taken by the students, and the conclusions, reflecting about questions that making the association between what they could observe in the experience of studying the environment with the principles of the Social Doctrine of the Church (human dignity, subsidiarity, solidarity and common good).

3: Every group should prepare the project bibliography with the research (including empirical data) about the institution goal. For example: the group acting in a nursing home will research about nursing homes in Brazil or São Paulo; the group acting in a daycare center will research about abandoned children in Brazil or São Paulo; and so on. This research is also guided by the discipline professor.

4: The institution visitation and action are done since 2006 but it was interrupted by March 2020 according to the restrictions of Coronavirus pandemic. It will be resumed as soon as possible.

5: Associação de Pais e Amigos dos Excepcionais, social organization which aims to promote integral attention to people with intellectual and multiple disabilities.

6: Asylum located in São Bernardo do Campo.

7: Daycare and nursing home located in São Bernardo do Campo.

It is the teacher's role, during social action, to guide and coordinate planning, execution and evaluation, suggest problems for study, stimulate research, guide students in proposing hypotheses and to help them get conclusions from their observations and research.

#### 4. WHAT IS POSSIBLE TO LEARN FROM THOSE EXPERIENCE: TESTIMONIALS

In the second half of 2019<sup>4</sup>, many groups choose to participate of events to fund raising which guarantee, in many ways, the partial budget of the entity (e.g.: APAE<sup>5</sup>, Lar São Vicente de Paulo<sup>6</sup> e Lar da Mamãe Clory<sup>7</sup>, in the city of São Bernardo do Campo). Other groups work in internal improvements of the chosen institutions, as the organization of the used books, cloths and furniture selling, which become also revenue to the entities. Other groups also work on food, cleaning and hygiene products, and toys collection campaigns.

There were numerous leisure activities for the el-

derly (bingos and afternoon teas) and for the kids (scavenger hunts and thematical parties). One of the most tangible results of the developed activity in the second half

2019 is that the Instituição Criança Vida Nova<sup>8</sup> has now its own library built by FEI students.

Besides that, other group of students strengthened the school reinforcement in the Instituto Meninos de São Judas<sup>9</sup>, with math classes. Other group joined the project to support math teachers of São Paulo State school system coordinated by Instituto Fernand Braudel<sup>10</sup>, which allows the group to check the deficiencies of public education.

The type of work is chosen accordingly to the entity needs but also to the willing and creative of the group. The work starting point is in the entity, which, being watched carefully, suggests ways of intervention and moves the students. This is a hard work period and occasion to see unknown individual skills. When looking solutions to the arose problems during the project, many times the students face obs-

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***The type of work is chosen according to the entity needs but also to the willing and creative of the group. The work starting point is in the entity, which being watched carefully, suggests ways of intervention and moves the students.***

issues).

The fieldwork presents challenges, raises new ideas and require chances in the initial project, which needs to be rethought several times. Cleaning tables, prepare pizzas, serve snacks, cut the grass, organize leisure activities with kids or being a partner to a small talk to elderly are not overlooked activities by students once their respond to the entity needs, that is why those activities are valuable.

However, it is necessary determination and effort to overcome the obstacles that arise to realize the action, as told by the student K. who prepare with her colleagues an special activity to the elderly of Lar São Vicente de Paulo: a tour to Santos Aquarium<sup>11</sup>, a snack and a walk on the beach.

“In the very first visit we could notice that, although

tacles created by the entity or circumstances which go further the group capable role (e.g.: budget or knowledge about education, marketing, fund raising or engineering

issues).

all the support they receive in asylum, the elderlies are attention needy, mainly that ones who has no more family or do not receive frequent visits. In this moment the tour idea came up which would be aimed at improving self-esteem and quality of life of those people. I admit that I thought it would be easy to realize the tour, but during the process I realized it was not that easy. Many problems and unforeseen arose but were overcome. Although all the effort the reward was much bigger because there is no way to describe the happiness I felt to see each smile on their face. That is a feeling I have never felt, the satisfaction of overcome the obstacles and reach the goal: create a moment of joy to the ones who need it the most” (K., engineering student).

To help children and teenagers with math tutoring at Instituto Meninos de São Judas Tadeu was also a challenge to a group of students who, with creativity and commitment, sought ways to respond to the local needs.

“When we initiated our visits in the Instituto, I realized the children have aversion and disinterest by the work we were proposing. But, after some visits, I realized the aversion and disinterest was actually the fear that the activity would be one or two days long and they were afraid to look silly exposing their school doubts. After some visits and an individual follow-up focused on their doubts, I realized the

aversion and disinterest became will and empathy. This change was clear when children could see us in the hall and they say: ‘You are back!’ or the times they came running to me with a notebook, a pencil and the eyes full of doubts asking ‘how can I make accounts with fraction? Do I need to simplify it?’ This children behavior change made me understand and experience the ‘fuel’ which moves the Institution crew to help them. Facing that, we decided to give them something bigger than the school reinforcement and we created the ‘Science Day’, which was a very funny and didactic day for them, where each single scientific experience they act in they asked if that was ‘witchcraft” (L., engineering student).

The social work is based on personal learning because it is always an opportunity to each one of the students to enlarge the knowledge about the world and about themselves, creating their personality, values and principles.

“I should confess in the beginning it was not convenient to work voluntary, I did not like this kind of activity, I have always hate working for free. Well, why should I offer my effort for nothing if I could be resting at home? But I did not know that was growing inside me silently the welfare sensation, a sensation of accomplished I will never be able to describe exactly. This feeling fed me and still makes me wish to be useful to the society” (G., engineering

8: Institution which provides activities to children in need located in São Bernardo do Campo.

9: Homeless shelter located in São Paulo.

10: Think Tank located in São Paulo to overcome Brazilians institutional issues.

11: Coast city located 38km far from São Bernardo do Campo.

student).

Those are another student words:

“Due to the moments I had at the entity, I could experience human values, which sincerely, I could believe it was possible to find nowadays. I believed the actual world was a greedy place where people were only moved by personal interests. Well the reality I faced was completely different. There are people willing to work for the future of the ones who has a whole live ahead, and the most important, people who do it for personal satisfaction” (W. engineering student).

The contact with social entities tests the individual and non-transferable responsibility which is everyone’s duty on social and political level. It is frequent that some students become volunteers at the visited entities or get involved in different volunteer projects. But this contact favors the student consciousness about how valuable the group action is and how important to avoid the public assistance dependency. They are capable to offer creative and effective solutions to social problems, emphasizing the belief that State should play a subsidiary role to promote the integral develop of all human being.

“Somehow, we verified and lived a very small scale of what could be implemented to the entire society: the fraternal and humanitarian action born from

the consideration of the person as the life center and dignity gifted. [...] The solidarity, with its principles, is the way to reach the social justice providing cohesion and, at the same time, autonomy between people. Result of individual will, it must be stimulated and organized by the groups and reinforced and subsidized by the State, which role should be oriented to the person” (H., engineering student).

We can ensure the social work is a valuable instrument to the personal formation, the only way to create economic and social relations oriented to justice realization and the collective welfare.

“To work at Lar Mamãe Clory, no doubt, was a big event to me, especially because this kind of work opened the horizons about what a human being should be. Working here I was taught to help because the meaning of life, in my point of view, is to be useful” (G., engineering student).

The moment the students face the goals and operation of the chosen entity, which aims to support the needs of the ones who are frequently forgotten by the society (e.g.: needy children and teenagers, elderlies, homeless, disabilities people) the solidarity, the person centrally and the subsidiarity come out the theoretical plan to be recognized as a part of the social life.

Lastly, it is important to see the student realize the vast solidarity network existing in Brazil, based by thousands of social entities which

are born from the individual or collective initiative to supply the needs of education, healthcare and culture sectors promoting silently the social development. The students realize those entities are a visible expression of the charity and they support the social needs in a more humanized way.

“The solidarity changes the social relationship. It is about an act which brings other people hope, changing the idea of an unhappy and non-future world. If this work is taking seriously by the ones who practice, the result is satisfactory because you can invade the reality of the ones who are discrediting the live and transform this thinking in action to change. The moment that it reaches groups of people, their social relationships which were full of preconception barriers and inability feeling before, are now open for new realities” (L., engineering student).

In this case, draws attention the testimony by student B. during his presentation back in June 2019. He worked at Lar da Criança Emanuel<sup>12</sup>. At the end of his presentation, B. asked to say a personal tes-

“

***Social work is a valuable instrument to the personal formation, the only way to create economic and social relations oriented to justice realization and the collective welfare***

timony telling us that three years before he was selected to the Junior Badminton Brazilian Team where he met another athlete who li-

ved in a favela of Rio de Janeiro. This athlete told B. his life had changed with a social project acting in his neighborhood. Because of that, he was able to leave his previous job as drug dealer. He said that smiling. But two years later this athlete was back to the drug business and left badminton although they keep in touch through social media. B. also told the night before his work presentation of Church’s Social Doctrine he had been communicated his friend was killed in an Army operation in the favela that he lived. So, B. concluded the perception that how important the social institutions were to change people live and how it could save lives although in this case the final was tragic.

## 5. DIALOGUE WITH IGNATIAN PEDAGOGY

The experience that we do in the discipline of Social Doctrine of the Church at the FEI dialogues, in my point of view, with an Ignatian Pedagogy in two points:

1. Person integral formation

12: Institution focused in children in need located in São Bernardo do Campo.

The Christian humanist formation should not be understood as a simple addendum to the formation of students in technological and ma-

management areas. The authentic Christian humanism want to foment an integral development, which does not only attend the requirements of economic and financial utility or the demands of the labor market, but which is sensitive to other dimensions equally essentials of human experience, such as the search for the meaning of our own existence and the demand for justice, for example.

“[...]Faced a deeply individualistic culture, the new humanism rescues the social and the justice. Face the loneliness, it is essential to rediscover solidarity. [...] Faced a culture that privileges the market to attribute value, it is necessary to rediscover gratuity and true freedom” (Montes, 2010).

## 2. University social insertion

Another important challenge of Jesuit Education is to train citizens capable of dialoguing with everyone and understanding the environment in which they play, proposing innovative solutions for the professional and social challenges that they faced (Companhia de Jesus<sup>13</sup>, 2009).

13: Portuguese translation of Society of Jesus. As the reference used was Brazilian, I kept the name in Portuguese.

“

***The intention is not only to train good professionals, but also people who in the exercise of their profession, can make decisions in favor of the collective welfare***

As effectiveness, the intention is not only to train good professionals, but also people who, in the exercise of their profession, can make decisions in favor of the collective welfare - or, to put it another way, people who are, in the words of Fr. Pedro Arrupe, former Principal of Society of Jesus, “men and women for the others” (Companhia de Jesus, 2009, p. 15).

In this way, the discipline wants to stimulate the student’s discernment about the reality experiences in which they find himself, an important factor for the student to develop a critical and transforming vision. It is also necessary that students are faced experiences which they can understand themselves as a social protagonist, thus, when they can practice their citizenship, collaborating for the reality transformation with a view to a society development of a more just and human.

“[...] we consider that Christian inspired universities in the Ignatian way, in the next years should communicate to young university and offer our anthropological vision more comprehensive and cultivating the taste for the collective welfare and a way to understand the life whose ultimate and supreme

reality is the love. [...] Even for those who do not have a political vocation, it is necessary to cultivate the social and public responsibility of their profession and business activity in which personal fulfillment is related to the achievement of a just society, which includes as a central objective to overcome the poverty” (Ugalde, 2013, np).

## 6. CONCLUSION

The classroom can become a space for discussion, centered on innovative paradigms, so that, from this perspective, it can develop skills in students that enable the development of critical thinking for the demands of our society. The teaching methodologies centered in the students allow that they learn through discovery, from the development of their analytical skills and motivation. The participation and involvement of the students has a great impact on their learning, as well as on the level of responsibility of each one with their own growth process. The social environment studies works to enrich the students’ experience, develop a sense of reality, decrease the verbalism of the lectures, relate the University with the community, in addition training the observation, data collection and analysis, offering diverse materials to be worked in classroom.

Finally, we realize that the following skills are developed during the activity carried out in the disci-

pline of Social Doctrine of the Church: learn itself, to deal with situations and contexts complexities; make decisions and act in the light of an ethical and humanistic framework; lead multidisciplinary teams, being able to understand, respect and value differences; communicate efficiently in written, oral and graphic forms; and analyze and understand the demand and users of engineering and its context to ask questions and give solutions for the area in question.

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## APPENDIX A

Questionnaire for Social Environment Studies

**Questionnaire for data collect**

**Social Work - Social Doctrine of the Church Class**

**1. Institution Data:**

Name:

Adress:

Telephone: ( )

Historic:

Structure: building, house, equipment (leisure area, court, pool, office, etc.)

Headquarters? Yes ( ) No( )

**2. Features**

**Work performed by the entity**

Methodology used:

**Service capacity: total :                      Current:**

**Cliente:** origin

Motivation:

What selection criteria are used?

( ) income

( ) needs? how do they evaluate?

( ) others

**Daily Routine**

Regular Activities:

**Operation**

**Profile of Volunteers / Employees**

Staff: how many?

Qualification: ( ) elementary school level ( ) high school graduate ( ) university level

For university level, how many?

**Work regime:** ( ) 40 h weekly ( ) more than 40 ; how much? ( ) less than de 40 ; how much?

**Volunteering** ( ) yes; from where ?

( ) no; why?

**Main areas of activity of the volunteers:**

Does the institution count on the involvement of the community, companies, associations? In what way?

**2.3 Financial resources:**

Monthly spend:

Sources:

**1. ( ) donations**

( ) private individual : forms

( ) legal entity (companies, schools, groups, international institutions)

**2. ( ) profitable activities**

( ) bazaar ( ) second-hand bookstore ( ) handicraft others:

**3. ( ) parties :** which, how many, periodicity

**4. Other ways of obtaining resources:**

#### **2.4. Relationship with the State and public bodies**

Do you receive any direct assistance?? ( ) No ( ) Yes What kind?

Other forms of relationship:

#### **2.5. What are the Institution's greatest needs?**

What is the greatest difficulty that the institution faces to continue its work?

( ) Obtaining resources ( ) qualified staff ( ) volunteers

Others:

Ideas, future projects?

## **APPENDIX B**

Some banners produced by students that explain the experience of social work in the discipline of Social Doctrine of the Church.

<https://bit.ly/3jcQCYh>



## Innovation in teaching methodologies for distance classes in practical Chemistry

### ABSTRACT

In the midst of the COVID-19 pandemic and in preparation for the Fall 2020 semester, we devised hands-on experiences for a distance Chemistry lab course. The obvious limitation of the lack of apparatuses and materials in the student homes was circumvented by purchasing all the required items and sending them to their homes. Students were able to work on 25 experiments, some of which were devised by themselves. The same idea and procedure are now extended into the Spring 2021 semester. The results have been outstanding in terms of motivation and learning outcomes.

### THE INITIATIVE

The authors describe their experience with a distance Chemistry lab course they carried during the 2020 Fall Semester. The students were able to complete 25 experiments, whose main subjects were:

- Basic electrical circuits and measurements
- Environmental electrochemistry
- Redox reactions
- Water electrolysis
- Energy generation and storage
- Organic electrochemistry
- Electroless and electrodeposition
- Inorganic electrochemistry

### OBJECTIVE

To enable students to have **experimental practice during their home confinement** in the elective course entitled "Electrochemical Processes and Corrosion".

### LESSONS LEARNED

- ✔ Students found some **differences in the microlab work from home and the laboratory work within the university.**
- ✔ They developed **scientific reasoning**, particularly in electrochemistry and corrosion.
- ✔ They improve their **mastery of the topics**
- ✔ They **generated oral and written arguments consistent with scientific practice.**
- ✔ They learned to use **basic glassware and laboratory equipment** following the proper techniques.
- ✔ They made **progress in the ability to prepare laboratory reports and audiovisual resources** aligned with good scientific practices
- ✔ They learned to **design sound scientific procedures** to generate new experiments or solve basic experimental problems.
- ✔ They managed their **time and space efficiently** and improved in developing **teamwork skills**
- ✔ They understood and applied **green chemistry principles**
- ✔ They understood and applied the **principles of ethical behavior in academia and in scientific practice**
- ✔ They **discussed the scientific or mathematical theories** and models developed through data analysis to explain some observed phenomena.
- ✔ Students had the **perception of knowing and using the safety standards and the proper handling of chemicals in a home laboratory**
- ✔ The **scientific data published in reliable sources helped them** better understand or report the results they observed.
- ✔ They appreciated the **passion and efforts of the teacher** and considered it a source of motivation

### OPPORTUNITIES FOR IMPROVEMENT

- ✘ The experiments should be **organized according to the regular class syllabus**
- ✘ Carry out **more group exercises** to stimulate teamwork
- ✘ Create a **better balance between theory and practice** since the theoretical contents were covered rather quickly
- ✘ **Solve problems after covering the theory**, and that these be offered with feedback and be linked to the assessment instruments

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# Innovation in teaching methodologies for distance classes in practical Chemistry

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### ABSTRACT

In the midst of the COVID-19 pandemic and in preparation for the Fall 2020 semester, we devised hands-on experiences for a distance Chemistry lab course. The obvious limitation of the lack of apparatuses and materials in the student homes was circumvented by purchasing all the required items and sending them to their homes. Students were able to work on 25 experiments, some of which were devised by themselves. The same idea and procedure are now extended into the Spring 2021 semester. The results have been outstanding in terms of motivation and learning outcomes.

## 1. DESCRIPTION, TYPE OF EXPERIENCE, AND CONTEXT IN WHICH IT WAS CARRIED OUT

In the midst of the COVID-19 pandemic and in preparation for the Fall 2020 semester, we decided to design hands-on experiences for a distance Chemistry lab course. The obvious limitation was the lack of apparatuses and materials in the student homes. To circumvent this problem, we designed a set of experiments and enlisted the required supplies. Due to social distancing measures our purchasing department was not fully operational and therefore we decided to purchase all the required items for the 19 registered students out of our own pockets. (This cost roughly one half of the monthly salary of the main author of this communication). This procedure turned out to give us an enormous amount of freedom. We are implementing the same idea for the Spring 2021 semester.

## 2. OBJECTIVES AND METHODOLOGY

The main objective of the designed experience was to enable students to have experimental practice during their home confinement in the elective course entitled "Electrochemical Processes and Corrosion". We were able to proceed thanks to the experience that we had accumulated over the past three decades at the Mexican Center for Green and Mi-

croscale Chemistry. This Center was founded in our institution in 1990 with the academic support of the National Microscale Chemistry Center (of Merrimack College, an Augustinian institution in North Andover, Mass, USA). Our Center was recognized by the American Chemical Society as the Mexican Chapter of their Green Chemistry Institute, and received one of the ACS sustainability-related awards in 2011.

The microscale approach involves the use of micromoles or microliters of at least one reagent, and/or the use of a reactor with at least one micrometric dimension, to perform or study a chemical process (Ibanez et al, 2007; Ibanez et al., 2008).

By working with small amounts of reagents, we have observed decreases in the following (Ibanez, 2011):

- amounts of wastes dumped into the ecosystem
- toxicity and danger to students and teachers
- reagent and energy costs
- time required to perform an experiment
- breakage of glass material
- amounts of reagents and products wasted in side-reactions

and increases in the:

- simplicity of experimentation and ease of experimental setup

- the variety of experiments that can be done on a lower budget
- the students' attention to what happens in the experiment
- the time available for discussion and reflection activities
- levels of self-confidence and satisfaction when conducting a wide variety of laboratory experiences.

Most of the experiments in the area of Chemistry can be substituted using this technique, without diminishing the educational gain. In addition, this strongly affects the development of skills and the promotion of attitudes and values by requiring greater expertise in the handling of substances and equipment, as well as by generating a culture of saving and caring for our Common Home. In Ignatian terms, we apply the Magis concept of doing more with less. In this way we have been able to influence students and teachers in 51 countries, including many underprivileged institutions in the 5 continents.

The kit sent to students contained roughly 70+ items including:

- Electrical materials
- General laboratory items and glassware
- Electrode materials

- Volume measurement and transfer equipment
- Solutions and reagents
- Safety equipment

Once we had purchased the necessary supplies, we prepared a set of solutions to be placed in 5-mL plastic droppers. Also, we enclosed solid reagents in small glass bottles (5 mL ea.). Due to the stringent regulations for shipping Chemistry-related materials through regular or courier mail, we hired a private driver to deliver all the kits in the student homes.

## 3. RESULTS OBTAINED

With the designed kit we were able to complete 25 experiments during the 2020 Fall semester. The main subjects of the experiments were (Rajeshwar and Ibanez, 1997; Ibanez et al., 2005; Ibanez, 2005; Ibanez, 2006):

- Basic electrical circuits and measurements
- Redox reactions
- Energy generation and storage
- Electroless and electrodeposition
- Environmental electrochemistry
- Water electrolysis
- Organic electrochemistry
- Inorganic electrochemistry

The fact of having the kits available all the time permitted to request that student teams designed and tested some experi-

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*Students were aware of the fact that it is certainly not the same to be in the laboratory or at home*

ments on their own, which accounted for 20% of the final grade. Students enjoyed this challenge very much, and some experiments turned out to be quite successful to the point that three of them are being contemplated for external publication in reputable journals. Another 20% of the grade involved the making of a short (3-5 min) video on a selected subject pertaining to the class. Another 20% was assigned to the final, comprehensive test. The remaining 40% of the grade was awarded by the delivery of homework and short quizzes administered during the semester.

#### 4. LESSONS LEARNED

We identified diverse learning opportunities that had not been explored previously outside the university habitat, like the development of several abilities and competencies to learn at home. We analyzed the learning outcomes in this course through two instruments: a) the evaluation of teachers by students performed by the institution in the middle of the semester, and a specifically-designed voluntary survey that we applied at the end of the semester

(responded by 79% of the students, i.e., 15 out of 19). The main outcomes are now presented.

Students were aware of the fact that it is certainly not the same to be in the laboratory or at home, and they found some differences in the microlab work from home and the laboratory work within the university. In addition, they identified learning opportunities in diverse ways that they had not experienced outside of the university settings, as well as the development of different skills and competencies to learn from home.

Regarding the specific knowledge that was developed during the course, two-thirds of the students commented that with the practice at home they improved their mastery of the topics on environmental, organic, inorganic electrochemistry, energy storage, electrochemical theory and corrosion. Almost half of the students perceived that they learned very well to use basic glassware and laboratory equipment following the proper techniques. All but one of the students said that they learned to design sound scientific procedures to generate new experiments or solve basic experimental problems. All but two of them indicated that they understood and applied green chemistry principles such as decreasing the amounts of substances used and minimizing the ge-

neration of waste. All but three affirmed that they discussed with their classmates and with the professor the scientific or mathematical theories and models developed through data analysis to explain some observed phenomena. Lastly, all but two said that using scientific data published in reliable sources helped them better understand or report the results they observed.

Regarding the competencies that were developed during the course, all but two of the students responded that they developed scientific reasoning, particularly in electrochemistry and corrosion. All but three mentioned that they generated oral and written arguments consistent with scientific practice. Almost three fourths considered that they made progress in the ability to prepare laboratory reports and audiovisual resources aligned with good scientific practices. All but three mentioned that they managed their time and space efficiently in their home laboratory and that they improved in developing teamwork skills. All but two said they understood and applied the principles of ethical behavior in academia and in scientific practice, and that they developed learning and autonomous study skills applied to electrochemistry and corrosion.

Regarding the safety skills that they develo-

ped during the course, all but two of the students had the perception of knowing and using the safety standards and the proper handling of chemicals in a home laboratory, while all but three participated in chemical practice conscious of safety and the environment.

Essentially all the students appreciated the passion and efforts of the teacher and said that this was a source of motivation, together with his ample knowledge of the subject.

#### 5. OPPORTUNITIES FOR IMPROVEMENT

The experiments were performed in a somewhat random sequence. They should be organized according to the regular class syllabus, but time did not allow to do so.

Some students suggested a better balance between theory and practice since the theoretical contents were covered rather quickly. Also, some requested to carry out more group exercises to stimulate teamwork. Lastly, there was a request to solve problems after covering the theory, and that these be offered with feedback and be linked to the assessment instruments.

“

*All the students appreciated the passion and efforts of the teacher and said that this was a source of motivation, together with his ample knowledge of the subject*

## 6. IMAGES

**Figure 1. Sample experiment. Homemade magnetically-assisted solar water LED electrolysis.**



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