# Porto LTTA Case Study

A reflection of the individual student experiences during the 1st Learning and Teaching Activity (LTTA) in Porto, Portugal

This case study looks at the steps that were taken to implement the 1<sup>st</sup> Learning and Teaching Activity (LTTA) in Porto, Portugal. It also reflects on the student individual experiences of the project.

This LTTA was part of the Erasmus+ project StartIT: Development of Soft and Future Skills Using Digital Entrepreneurship.

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## Overview

A group of 50 computing students from Germany, Ireland, Belgium, Poland and Finland took part in a ten-day Erasmus+ project in Porto, Portugal. The project was hosted by the Portuguese partner college, ISPGAYA. The students travelling from each of the five colleges were accompanied by two academics from their college.

The students were formed into international teams in such a way as to ensure that each team contained one student from each of the participating colleges. The student teams were tasked with building a prototype of a mobile app that tackled an issue relating to the area of "sustainable tourism". The student teams were also required to develop a business plan to show how they could commercialise their mobile app.

A major goal of the project was to provide the students with valuable interpersonal and communications skills. This was achieved by getting the students to work in multidisciplinary and multinational teams and by requiring each team to make three different presentations during the duration of the intensive project.

The project also provided students with a great opportunity to improve their technical skills. In particular, the students got to put their mobile app design and development skills into practice.

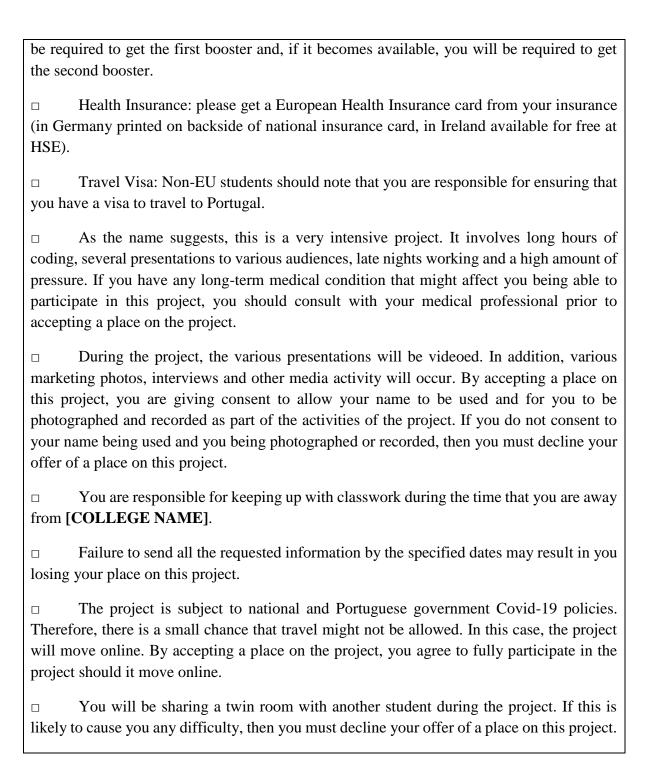
Each college was allowed to apply its own criteria when selecting its ten students who participated in the project. In all cases, consideration was given to gender balance. All five colleges also ensured that students who were socio-economically disadvantaged were included in their student group.

# Student Participant Checklist

Students who were selected to take part in the project were informed in advance of the various visa, Covid, health insurance, room arrangements and the student's responsibility to keep upto-date with other college work. Students were also informed about the intensive nature of the activity and students were requested to allow their photo and/video be taken as part of the project. Each college adapted the template below to suit their own individual needs.

Project information: You have been selected to take part in an EU funded intensive app development coding project that will be held in Porto, Portugal, from the 14th to the 24th September 2022 inclusive. The project is called "START-IT". The project involves students from six EU countries (Ireland, Germany, Belgium, Poland, Portugal, and Finland). The main objective of the project is to build capabilities in the participating students to tackle skill gaps and mismatches with regards to soft and future skills and digital skills. The project aims to promote internationalisation. The 50 students in the project will be supervised by both internal and external mentors/experts. During the project, students will be assigned into multi-disciplinary and multi-national teams that will be required to develop a business plan

		app addressing the Erasmus+ horizontal "Climate Change" goal. The project will the needs of a local business, NGO or governmental partner. The inclusion of		
needs a "real project	and w -worl Exa	er will ensure that the apps built during the project match real-world marketplace ill provide students with the experience of fulfilling a non-academic project for d" client. The local partner will bring climate change domain expertise to the mples of challenges addressed by the entrepreneurial digital solutions are: trash tourism, energy reduction in office buildings, and water management in hotels.		
A total of ten students will take part in this project. You will be accompanied on the project by <b>[XXXX]</b> . Your flights, accommodation, breakfast, and lunch are funded by the project. You are responsible for all other expenses that you incur.				
	You have to provide the following information:			
0	1.	Forename on passport		
0	2.	Middle name on passport (if you have one)		
0	3.	Surname on passport		
0	4.	Date of Birth (in format dd/mm/yyyy)		
0	5.	Nationality		
0	6.	Passport Number		
0	7.	Passport Expiry Date (in format dd/mm/yyyy)		
0	8.	EU Digital Covid Certificate		
0	9.	Phone Number		
0	10.	College Email		
0	11.	Personal Email		
0	12.	Emergency Contact Name		
0	13.	Emergency Contact Phone Number		
0	14.	Health Insurance Provider		
0	15.	Health Insurance Number		
EU Digital Covid Certificate: Because it involves international travel, you must be fully vaccinated against Covid-19 to participate in this project. You must provide a screenshot of your EU Digital Covid Certificate.				
By accepting a place on this project, you agree to comply with any government recommendations in relation to Covid vaccinations prior to the trip. In particular, you will				



# Agenda

The agenda was made available prior to the project. It was also presented to the students on the first day of the project. The agenda is shown below.

Wed 14 <sup>th</sup>	Travel day arrival in Porto
	Welcome dinner

Thursday 15 <sup>th</sup>	Morning:
Thursday 15	Welcome/Intro to project (Katharina) 10min
	Joao: Intro to Porto (10min)
	External person env. Issues around tourism (30min)
	Derek Task explanation (30) (explain, groups, agenda,
	attendance, rules)
	Derek/Hiram ice breakers
	Afternoon:
	3-4 interactive TED talks (30min) (
	Aliasghar: teamwork/project management/soft/future skills
	Kzrysztof: apps dev. For non-techies
	Katrin Dziergwa: entrepreneurship/business plan for non-IT
	people,)
	(end of interactive TED talks: bullet points – this is what we
	expect),
	Derek: team formation (could be up to 3 hours)
Friday 16th	Teams work on idea
	Afternoon: 1 <sup>st</sup> presentation
Sat 17 <sup>th</sup>	Morning: Teamwork with mentors
	Afternoon: Teamwork
	Staff dinner
Sun 18 <sup>th</sup>	Free day
Mon 19 <sup>th</sup>	Teamwork
Tue 20 <sup>th</sup>	Morning: 2 <sup>nd</sup> presentation (Moderation: Katharina)
	Afternoon: voluntary support sessions (
	Aliasghar: teamwork/project management/soft/future skills
	Kzrysztof: apps dev. For non-techies
	Katrin Dziergwa: entrepreneurship/business plan for non-IT
	people)
Wed 21 <sup>st</sup>	Teamwork
Thursday 22 <sup>nd</sup>	Teamwork
Friday 23rt	Final presentation
	Fill in last surveys
	Deliver certificates
Sat 24 <sup>th</sup>	Travel day

## **Team Formation**

Prior to the team formation, all the students took part in various group-building exercises. These exercises lasted about two hours. Students were broken into groups of size ten to 15 for this activity. The exercises involved the students informing each other about themselves in a relaxed atmosphere. The questions that were asked were general of a general nature (for example, about the types of pets that individuals owned or about people's hobbies). After every 30 minutes the groups were re-formed, so that all the students got to meet all the other students.

After the team building exercises, the students were instructed to make ten teams of five students, such that each team would contain one person from each of the five colleges and each team would have a balance of people who had technical, business and communication skills. It took about two hours for the team selection to be completed.

### **Mentors**

The student teams were given one evening to work on their initial project idea. They then gave a presentation, where they outlined their proposal. After this presentation, the mentors went around the teams and discussed their ideas in more detail. The students then got to propose three preferred people from which their mentor would be assigned. The mentors then met privately and assigned mentors to each team, in such a way that a preferred mentor was assigned to each team.

# **Project Activities**

During the project, the students were required to present their work on three occasions. The presentation milestones ensured that the students focused on their workload throughout the project.

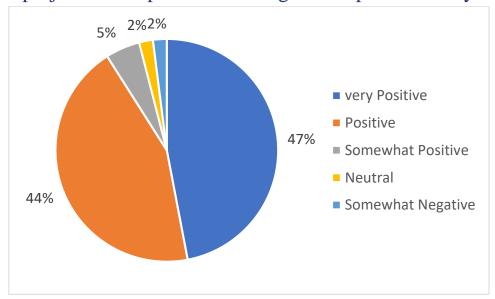
## **Student Reflections**

At the end of the project, the students were asked to complete quantitative and qualitative surveys. The surveys focused on the individual student experience of the project.

The unfiltered results are shown below.

Most of the students reported that the project was a positive experience.

### Has this project been a positive or a negative experience for you?



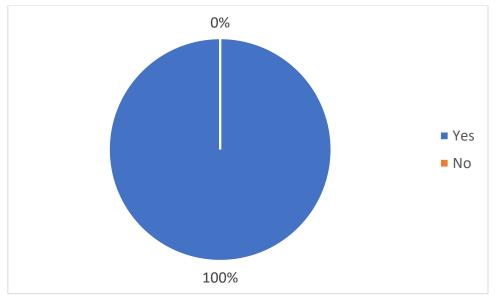
When asked to explain why they selected their answer to the above question, students stated:

- "The project really helped me improve my communication skills and my English in practice"
- "I've gained a lot of knowledge regarding the startups and now I know how it exactly is working and what people expect from us."
- "Because I improved my English skills, I made new friends and I had a lot of fun"
- "I learned new things."
- "I learned a lot about communication between strangers from different countries in English, improved my prototyping and programming skills, became more confident in presenting, improved my teamwork skills, learned to lead a team better and what it's like to be a leader, i have learn a lot from other people from the project and saw a new country for me"
- "It's new experince and chance to learn something new"
- "Met great people, had fun during the project and worked on language skills"
- "Because I met new people and I was practicing my language skills."
- "This project gave me opportunity to work in international team and I was able to learn so many things and helped me to communicate with mass and confidence to speak to mass."
- "I selected "very positive" as my choice. The project was a great experience since it was challenging, and knowledgeable. I got opportunity to meet people from different countries from several background. We exchanged our ideas and views about the topics we were presented. Through this project, I have developed both professionally and personally and I'm extremely grateful for this experience."
- "i learned more about team work...and in future what i should learn"
- "I was expecting to code more. I think this program is better for business students but most it students I talked to were disapointed. I am a 3rd year IT student and I already work in tech so I found I did not get much of anyhing but a nice trip to Porto."

- "It has been a positove experience because of meeting new people and working in an international team. Also it has given an insight into what is needed to start a business venture."
- "The project provides me to work in a international team and that is valuable for me"
- "Contact with other people from europe, experience with foundation,"
- "Unique opportunity to exchange ideas with international students and to make contacts, inhibitions about speaking English have noticeably reduced, getting to know the region and the country was very interesting, the project topic is an important and current topic"
- "It was a great experience. The intro to Gaia came unfortunately short and the mentor choosing process did not feel pleasant. In addition I would give a broader framework for the given task. We weren't able to generate great ideas, because it had to be an app"
- "I had the chance to develop many of my soft and hard skills. Working in a team everyday was a great exercice for being more tolerant with others and accepting different opinions. I never studied business but had some practical experience from a club i was part of so it was nice to be intensively occuppied with it and finally understand from a practical experience how to build a good business model. I also had a very nice time in porto and was able to enjoy the city, beach and all the amazing things about it."
- "By spending so much time with new people from different cultures I got a new perspective on things."
- "The Project was well structured. The Portuguese staff was amazing, everything was taken care of. It was nice that breakfast and lunch was included. And it was also nice, to have the freedom to grab dinner ourselfs. There was a good mixture of "appointments" and free time. The acommodations where amazing. The Professors where all really nice. I liked that the project was chill and there was not to much pressure. I liked that we had a bus ticket, made traveling around easy and convinient."
- "Great experience to meet students from other countries and with different skills and mindset. Something's culture barriers were here while working but in general I really enjoyed the work and the journey."
- "It was good but not perfect"
- "Because it was a amazing experience to meet so many people from european countries. It was great to face the challenges which come if you start working wit 4 guy you don't know."
- "eah it was great for personal growth. I really enjoyed."
- "To begin with the project was a very enjoyable experience in all aspects. Meeting and working with new people was a valuable experience for me."
- "I had the best experience in any academic project I have ever been a part of. I loved every person I met during this project aswell as the accommodation a facilities we were in. Overall it was great and I would love to do it again."
- "The project has been an amazing experience as a student and as an international student. Meeting students from different colleges, barely knowing them and yet working together towards our goal for the project was intense and challenging."

- "I learnt a lot and I actually got to do the thing that I am interested in, I also had lots of fun meeting new people and getting to know them. The thing that is quite hard is that the theme is so general and all of the teams are working on the same theme so it is quite difficult to come up with an original idea since most of the ideas are already done anyway. But other than that it is refreshing that I got to work in something not really related to my course since although it is an app, it mostly consists of business plan and just prototypes so I find that interesting although I feel like doing business is not really for me."
- "It was overwhelming at first as I have not been abroad without my family before but after a few days a felt a bit more settled and so I could enjoy it a bit more"
- "I feel positive in this project because I meet my team member that came from other country. I learn a lot from them, such as the way they working, the way they solve problem. We also talk about our culture and different living style. I feel I really gain something in this project."
- "It has been a valuable learning experience in which I have gained new friends and time management skills."
- "The experience was an added value to be able to develop myself in an educational way in an intercultural environment."
- "I expected to learn more instead of just working the whole time"
- "For me, this has been a positive experience since I have never done a project like this. I saw it as an opportunity to learn more about the business world, about working together in teams, and to test myself and my capabilities in this field."
- "it was a valuable experience"
- "Nice to meet students from other countries. I missed more information about the finances of an app. You have IT people and business people but the knowledge about the app business was new for everyone. Same with sustainable tourism, knowledge was very few"
- "Because I learned a little, and it's nice to meet new people"

Do you think that working in a multi-disciplinary team is a valuable experience?



As shown above, all the students thought that working in a multi-disciplinary team is a valuable experience.

When asked to explain why they selected their answer to the above question, students stated:

- "I just like meeting new people"
- "It definitely broadens the point of view. IT people won't know if something has a financial possibility to exist, while business people won't know the difficulty of the solution's development."
- "Because we have to create something new with people we've just met, and they all come from a different country. So that's valuable in CV"
- "You can practise using another language."
- "It teaches you how to communicate, how to work in group, that sometimes some people agree or dont but you have to make some compromises and get your work done"
- "We have a good atmosphere in the team and everyone is polite"
- "You can get the insight on how people from other fields look at certain things and you can learn something new"
- "Working in a multi-disciplinary team was able to enhance my team work efficiency and my communication skills."
- "Working in a multi-disciplinary team is what we get while working in any company. There are people with different professional skills. So, working with multi-disciplinary people in this project was a valuable experience. I benefited from more knowledge, learnt to build co-operation and collaboration, and pave the way for progress together."
- "it's makes us ready to work in a team better..no matter what kind of members you have"
- "I think this kind of project is more suited for business degree students."

- "It is good to get different viewpoints and lesrn to co-operate with different personalities and ways of working. I also got to know a few new tools to use, eg. Miro, Trello and Figma."
- "It is hard to find multi-disciplinary team and have a goal to work toward"
- "work with different cultures and contries, work with other faculties from ohther universitiess"
- "Different personalities and cultural experiences encouraged creativity, especially in finding ideas and in the possibilities of approaching and solving a problem"
- "I learned a lot about myself and how to work in a team. It was a different challenge than working with colleagues from my own univeriy."
- "Because everyone has something to bring. To be honest our team was not very multidisciplinary, all of us are IT but the culture difference is what made it very interesting."
- "It is very much because people think and work very different."
- "Yes definietly, that way everybody can focus on their respective field, just like in real work world. Also it was valuable to work with other countries/cultures, I learned a lot, about myself in a group setting. Having to trust everybody to do their part as best as possible."
- "You have to represent your opinion and come into discuss with others. You lern that there is not only one right answer and you have to make compromises."
- "I've learned lots of stuff about people from other cultures and working together with them"
- "Because you are able to learn from the others and everyone has a own strength"
- "It was a realistic experience. I am more than likely going to work with people from different countries."
- "This was my first time working in a multi-disciplinary team. I feel it was a more representative idea of what future work scenarios will be like, than regular group work projects with my class mates."
- "Everyone has things they are experts in and by organising everyone in a group one can both learn and enjoy working from them. It also brings in different perspectinves allowing for a more developed final product."
- "Working in a multidisciplinary team as we had in porto was a valuable experience. We have always worked with students in the same course as us and our view to the problem is more or less the same. Having someone who has a different perspective or approach is important to solve a problem."
- "It is interesting getting to know people from several different countries and everyone has their own personalities and style of work, so from this project I learnt more on how to handle people with different types of personalities and working styles. But I feel like sometimes it is also quite hard to manage everyone and accommodate everyone's thoughts and opinions."
- "It is a good idea so that people can learn to work with people who have a different culture and experience"

I think working in a multi-disciplinary is valuable because we can exchange and sharing about the different knowledge."

Yes it is important to learn how to delegate tasks and work productively as a team."

This forms a foundation for my later career"

You learn a lot from other people, and you are expanding you netwerk with people all over the world."

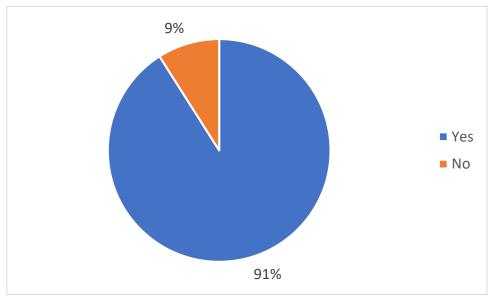
Because they can do things I can't, however instead of working and everyone doing what they know I would have loved to learn how to do those things for myself."

working together with people from different backgrounds and from a different culture is valuable."

Its nice but you have to be open for it yourself, if you don't ask questions to your teammates then you won't learn anything new. I found putting the knowledge together very good."

You can learn frow different countries."

Do you think that taking part in this project has improved your communication skills?



Most students believe that taking part in this project has improved their communication skills.

When asked to explain why they selected their answer to the above question, students stated:

- "Cause now I'm not scared to speak English"
- "Thanks to this project I improve mostly my language skills."

- "Definitely yes. I got a bit more used to using English and it feels for me more natural."
- "Because everyday I have to talk a lot with people"
- "You had to work in a team."
- "For sure, i feel very confident from the first day to the last i'm not getting affraid to speak in other language, im even starting to think in english now:)"
- "I learn more language and can make a International project. It's good achievement for CV"
- "Improved confidence in english and presentation skills"
- "Sometimes I was talking in English all day without using my native language."
- "Working with multicultural environment enhanced my communication skill and speaking skill with full confidence."
- "I wouldn't say that it has developed my communication skills. However, this project surely has given me all that confidence to speak in front of people because we had to give presentations during this project."
- "you met different kinds of people and kind of bound to talk for need..so yes"
- "It was nice meeting so many international students."
- "I thknk it has improved my communication skills in the way that I need to make sure everyone understands and is on the same page. With international teams where not many are native in English, the risk of misunderstandings is bigger."
- "I speak more professionally and prepare the before presenting."
- "Communications about specifical thems in english"
- "You were forced to speak English right from the start and it wasn't a problem if you didn't master this language perfectly, because many others had a similar level"
- "I had to communicate what I might have seen differently in a way which doesn't offend anyone"
- "To be honest, i'm a communicative person by nature. I know how to express my mind and listen a lot to people so it was more of an opportunity to practise but i wouldn't say improved."
- "It felt like you had to do double the amount of communicating because of the language barrier and different levels of education"
- "Accepting different opinions, learning to move, to be able to finish up. Listening to everybody and showing respect for different approaches. Also making sure, we are all talking about the same thing. Maybe taking lead, dividing the todos, when others having difficulties staying on track."
- "It brings me out of my comfort zone. In my group I have a safety space to speak without thinking too much on every right word. The presentations helps me to speak in front of people in business though."
- "I'm more confident speaking English now"
- "Definitely 110% improvement because i never had to talk in English to so many different people. It was also not all the time easy to explain what you think or want because everyone comes with own interpretation and own ideas"

- "I struggle at the start with engaging with my team. There was a communication misunderstanding, and this did hold our team back at the beginning. My team had a lot of strong heads which meant we did clash quite often at the beginning. However, as the project went on, I found ways to engage and community more with my team."
- "Normally I struggle to work in groups but because of the people that were a part of this project I really enjoyed it aswell as worked well and efficiently with everyone. This also inspired me to try to work in groups more often just to experience this again."
- "I believe so because we had to engage with people we had never met before, work with them to create an idea and a final output. This project has given me a new experience wherein communication was needed in a time bound situation with strangers."
- "The reason is because we do teamwork everyday and work with people from various different backgrounds and we are also encouraged to come up with ideas and discuss about it."
- "Being put in a situation where I have to talk and interact with people pushed me which I think I needed it to help me develop"
- "Yes, this project improved my communication because I need to communicate with my team else I can't really work with them so I push myself to talk more with my team."
- "I try to speak more clearly now and get my message across effectively so that we can function as a team."
- "I already had experience, improvements could be made by working effectively with professional entrepreneurs who corrected us or gave a pitch about their concept."
- "I learnt to dare to speak and give my opinion, but also to listen to others' opinions. Sometimes not everyone might agree on an idea, but we always managed to meet each other half way."
- "Because we learn a lot about this at school and I don't think this was a professional experience to be real honest."
- "Having to talk in English has definitely improved my vocabulary and pronunciation"
- "Improved my English and learned to work with other nationalities, different ways of looking at a project."
- "My english is a little bit better. I'm less nervous for communicate in a different language"

## Activities that you engaged in

The students were asked to give an overview of the activities that they engaged in during the project. In answer to this, students stated:

- "Meeting new people, sightseeing"
- "Researching the information, preparing the prototype of app"
- "Using programs like figma, pixlr, gimp etc., presentation and language skills, making friends from other countries, spending time another way than usual, team working, making compromise."

- "Even though my field of study is IT, I decided to help with the business plan, especially because we didn't have a single person from business studies. I was mainly researching a lot of things and calculating the revenues."
- "UI design"
- "App development."
- "Prototyping and programming of the app, designing the app, preparing a presentation, brainstorming and coming up with new ideas and solving problems"
- "Make new contacts, work with others on a project"
- "Creating figma prototype and costs for the business plan"
- "I was developer"
- "Our team was AquaUp and our project was to provide pure free and paid refilling water station near user location. Using our designed app user will be able to find hygienic refilling water station."
- "There were lots of activities that I did in this project. I co-operated with my team members and made presentations, develop an app prototype, help my team members doing research on our topic, rehearse our presentations, etc."
- "group work,research,analysing problems and find solutions,figma,presenting"
- "I worked on figma and doing much of the flow of the app and parts of the idea."
- "I mainly engaged in the financial side of the project and calculated ad revenue etc. I also participated in working on the concept."
- "Scrum master, Figma prototype, making presentation slides"
- "write the Business Plan"
- "I was responsible for the business part of the project (gathering information, calculating costs) and gathering the information for the presentation"
- "Product management, Creating Business Plan"
- "Brainstorming, Business planning, Protoytyping, Presenting, Researching, talking with locals and getting their feedback"
- "surfing, sightseeing, presenting, learning"
- "Unsure what this question is about. We had a lovely welcome dinner at the sea. We went out at night, went to the city centre and went to the beach. I had a good surf sessions. I loved taking the bus and getting to know Porto, eating in typical Portuguese restraunts and trying new foods and drinks."
- "Business plan, research, cost analyse, advertising plan and prepare presentations"
- "Meetings, discussions"
- "I took the product manager role in thia project and i were able to introduce my team to tools like trello or miro. I planed the nex steps and tried to keep the team together"
- "I attended lectures in Ispgaya, where various mentors went through a number of lectures relevant to the project. For example, a lecture on the Agile methodology and how to incorporate Scrumwise. In the first day as a group, all students from across the five colleges participated in icebreakers, which were a great way to meet and get to know the other students. Across the 10 days we had to create 3 presentations for our project which was a challenging tasks. I spent various hours brainstorming ideas and

- concepts with my team, to decide which project idea we would pick. I did a group presentation with my classmates where we talked about DkIT and Irish culture."
- "The activities that I engaged in during this project were: Working as a part of a multidisciplinary and multi-cultural team. During the project I work as part of a team that
  had members from multiple disciplines. In my group two other members were studying
  a similar computing course. One was studying a business course and the last member
  was studying teaching. Each member of the team brought a unique perspective to the
  team. This was my first time working in such a group. The group work I have
  participated in have been with people I either knew already and/or share knowledge
  and experience with. As the only member that spoke English as my first language, I feel
  that I helped facilitate communication in the group. Helping to communicate the ideas
  and thoughts of my team members more clearly. Presentations. During the project we
  created and presented three presentations for app ideas relating to the topic
  "sustainable tourism". As a team we worked together to decide on the content of the
  slides and the accompanying speech. As a team we decided on who would take each
  part of the presentation. Together we practiced our parts and gave feedback to each
  other."
- "Surfing, Skim boarding, App development, prototype creation, UI design, user feedback understanding and implementation"
- "The project started with team being formed after ice breakers. One had to observe, talk and analyse how people would fit the team or not. It was followed by discussion on the goal of our applications and it's structure. Our team went through two presentations building up the idea for the final showdown. We were mentored by Derek, a lecturer from DkIT who gave us guidance on presentation skills and business plan. ISPGAYA was an amazing host."
- "Come up with an app idea about sustainable tourism, especially in Porto and Gaia. We need to come up with an idea, so we brainstormed about it, and also come up with a business plan and prototype to go along with that. My main focus was developing the prototype of the app using Figma."
- "I helped with the figma prototype, created personas and routed for potential users. My group and I also met with a local one evening and got some information from him and his opinion of our app idea."
- "About activities, we not only work on project, we also spent time with our own college friend during night time, we will go out for dinner and I also go out with friend to sao bento train station to look around porto."
- "Designing, presenting, organising, delegating, discussing and app construction."
- "I was responsible for designing the presentation, the marketing part and ensured a good dynamic in our group."
- "I helped with coming up with our concept, I was responsible for the marketing and business development part. So espacially the business plan together with one partner. We all had our parts in the project, but we also worked together really well as a team."
- "I worked on the business plan"
- "researching, presenting, making a powerpoint"

- "Research about needs of sustainable tourism, what are the problems, what are possible solutions."
- "Create presentations, graphic design, thingking about the concenpt"

### Academic learning that you experienced

The students were asked to give an overview of the academic learning that they experienced as a result of participating in this project. In answer to this, students stated:

- "So I could work in Figma for the first time and I think it's pretty cool"
- "I meet new programs. I think You should try to make more presentation courses, because that was one of the most important things in this project."
- "Regarding IT all I've learned is the existence of Figma, but I was not the one using it in our team. But except this, I have got a lot of knowledge regarding startups."
- "I don't understand this question."
- "I think all of that I have mentioned before"
- "It was something new for me, but I enjoyed it"
- "Software engineering"
- "I was able to start project from scratch and able to use team individuals creativity and we were able to complete prototype of mobile application with figma designing tool."
- "Since we worked in teams, I learnt a lot about team working skills and realized it's importance. Also, I did not know much about business side of things, so I got to learn about how to set up business plans for starting up any company. One other prized skills I learnt was to think differently and creatively to come up with various ideas."
- "team work, presentation skills, generating new ideas, more about business plans"
- "Teamwork skills maybe."
- "I learned how to start up an IT-project and what needs to be considered for it. I learned to use new tools."
- "I learned how to work better in a international environment. I learned how to be a better team leader. I learned how important communication and vision in order to be a good team leader. I learned how important business plan is for an idea/app."
- "know about the entrepreneurship for the future"
- "Project management and dealing with team members, including team leadership and time management, were things that I was able to deepen during the project and experienced in practice. I was also able to improve my ability to express myself in English."
- "I didn't learn a lot in a academic way. A lot of my tasks were things I already new"
- "How to build a good Business model"
- "The most challenging part was thinking about an idea and continuously thinking about making it better and solving problems."
- "Project Management, Prototyping, Interculturally communication. I thought the the ted talks where important, but I didn't learn anything new during these talks. Not

strivinig for perfection, rather finishing a well rounded project. I learned a new tool (canva), I will definitly continue working with it. Also presenting in englisch."

- "Mostly communication and presentation skills"
- "Self-organising in a team"
- "I learned to work with a new team on a project. I improved my english a lot and i had to face a lot of research challenges"
- "I learnt how to improve my presentation skills. For example, speaking slowly and clearly and also projecting my voice so everyone in the audience could understand my part in the presentations. I also learnt about how to introduce ice breakers into my presentation, so that I could engage the audience more with the presentation. I learnt more about the process behind designing and developing an application and how to tailor a product towards the target user. I also gained insight into how to create a business plan and ensure that the product is feasible. I became more experienced in developing a wireframe using Figma. For example, I learnt about the component feature which is extremely useful in organising my work for easy collaboration. This helped me greatly when creating the protype for Ask Us. I also got to use the Canva application which is an alternative to PowerPoint. I found it allowed me to be more creative in designing a visually appealing presentation. I had to collaborate with students from a variety of courses across different countries while creating the project. This was a challenging process which offered me insight into the workings of a multi-disciplined project which our team adapted to and overcame in the end."
- "Throughout the project I was able to use some of the knowledge and experience I had gain from modules like "Applied Software Development Principles". The project allowed me to have an experience closer to going through the early development stages of an app in a work scenario. By working with a business student, I learned more about the business side of app development. Calculating costs, estimating revenue, and turning this information into a business plan. As a computing student, my experience so far has been focused on the technical side of app development. In the future I hope that I will be able to incorporate some of what I have learned into my own projects."
- "Teamwork, Buisness plan creating, Organisation, Backlog writing, user feedback implementation"
- "Knowledge on how to walk through a business plan. Emphasis on how to make a product attractive to audience while keeping the technological functionalities to the point."
- "Since my work is mostly related to the UI/UX of the application, I learnt mostly about UX design and research, which is closely related to the UX Design module I did last year. The other thing I learnt is also about business and marketing plan, although it is not really closely related to what I am studying in DkIT, I feel like it is still an important thing to learn for the future."
- "Figma prototyping tool, public speaking and group work"
- "I learn how to use figma to design an application and be more confident when presentation. I learn a lot idea that came from my team member, they are really good and specialized on what they learn"

- "The learning was detailed and useful in all aspects of life. Communication skills and learning to work as a team were key components of what we learned. I learned more about app development from my peers and more business aspects from the whole project."
- "Valuable!"
- "I feel like I know more about making business plans now. In school they teach you how to do it, but actually trying to make one yourself was a positive challenge for me."
- "I learned a little more on how to make a business plan"
- "Learning how to do market/general research"
- "That an app is expensive and asks a lot of time. Defining the problem and look for possible solutions (I will use that way of thinking for my bachelor thesis)"
- "Better communicate"

### Personal growth that you experienced

The students were asked to give an overview of the personal growth that they experienced as a result of participating in this project. In answer to this, students stated:

- "Speaking more fluent in English, making compromise with other"
- "My communication skills have highly improved and I feel more comfortable when talking in English"
- "Communication skills."
- "The most growth i feel in my skills of working and leading a group of random people, communication in english, im now more confident of my skills"
- "Easier conversations to start, learn new things"
- "I will be more confident when I will be talking with people in English"
- "I have more confidence to speak in mass and have increased in my communication skills with IT tech skill like designing application."
- "There are lots of personal growth that I experienced during this project. Since we didn't have much time for the project, we had to complete our tasks on time. So I definitely was able to improve time management. I too improved in listening actively because I had to listen very careful about what my instructors and team members say so that I get all the ideas and points they make. Then, I also improved my speaking confidence. I learnt how to work efficiently in a group or team members to execute plans."
- "I became more confident"
- "I was expecting more code, more focus on programming and such."
- "I understand even more the need for flexibility in working as a team and to make sure everyone feels involved."
- "I learned how to work better in a international environment. I learned how to be a better team leader. I learned how important communication and vision in order to be a good team leader. I learned how important business plan is for an idea/app."

- "That i am the only one who plan the business plan and had the know about business."
- "I'm much more likely to dare to speak English at work and was able to strengthen my self-confidence during teamwork. This will help me a lot in the future."
- "I've become more resilient and made great new conections with other colleagues"
- "I'm very passionate about the idea we're working on and personally i would like to pursue it later in life. It combines all the things I love: business, culture, traveling and IT"
- "The interdiscliplinary working offered a unique cultural exchange, which made me come out of my comfort zone, which was very refreshing!"
- "My communication skills improved a lot. Group work when not done with friends is always a though but good learning opportunity. Moving independently in a different country definetly inspired me. The barrier is lowered to do an ERASMUS exchange in the future. Also very interesting to see how one acts in a new group. Also beeing a little bit more responsible. E.g. showing up on time, because a lot of people have put a lot of effort into it and it would be uncool to not play by the rules."
- "Finding solutions and compromise together in group"
- "More confidence"
- "I noticed strength and weaknesses i have. Language skills and self organization"
- "My team's initial idea was to create an application for locating an showing bins in Porto. However, this idea was not liked by the majority of the team. We went back to the drawing board to brainstorm and develop a new idea which we were a lot happier with. I learnt on this trip that its fine not to have the best project and the best application. Sometimes it's ok not to be the best. This experience was not about just academic excellence but rather more about improving myself personally. I had such a fantastic experience social on this trip where I met fellow students from DkIT which I really wish I knew before this trip. I made great friendships for life, and I think my college experience social will be a lot better because of this trip. I feel more confident in presenting my ideas and concept and I felt both my technical and soft skills have improved a lot. I tried out new foods on this trip such as sushi which I loved. I always laughed in the social parts of this project. This project helped me to remember that college is not only about improving yourself academically but is also a personal journey for me to find myself. If I have learnt anything from this trip is that 'here is no greater danger than playing it safe.'"
- "As a result of participating in this project I experienced personal growth. I feel I became a more sociable person, being placed in a setting where I didn't really know anyone beforehand, force me to become more comfortable talking to new people. As a result, after returning from the trip I have felt more comfortable initiating conversations with new people. I feel my public speaking ability has improved. I know that I am not the only person that finds public speaking nerve wracking at times. In my group I took on a leading role in our presentations. Being in that position has made me more confident in my abilities. I have gotten to know people, some of who I likely would have never interacted with except for this project, both other students from my own college

and others from across Europe. I hope that I will be able to maintain these personal connections as time from project continues to pass."

- "Teamwork, socialising, comunication, Buisness plan creation and development"
- "New friends in four different countries. First time abroad. Cultural exchange. Making life long memories. Discovering new things about myself when I had to work under a small time bound setting."
- "Personal growth I experienced as a result of participating in this project is that I learnt to improve my public speaking skills by doing several presentations. I also learnt how to work with a team with people with different personalities and how to handle them and clear things up since almost all of them are quite opinionated. I also learnt how to handle stress and pressure and also time management, since there were lots of things that needed to be done in a tight deadline."
- "Greater self esteam, confidence and being able to survive on my own in a new place."
- "Tara, my team leader. She look cool and I really admire the way she work, she also know what to do and help our team not get lost."
- "I gained more confidence in handling tasks and dealing with new people and situations. I feel more flexible to put my mind to any task."
- "I especially found the combination between learning, development and the social aspect extremely interesting"
- "I feel more confident when presenting in front of people, I learnt to stand up for my opinion, but also to find a compromise with others if there was a disagreement within our group. I also learnt that communication is very important!"
- "I learned how to let things go, not stress too much and to not always try to be perfect"
- "I have socialize with people and my english has improved. I can communicate a bit better in english now."
- "Improved my English"
- "My english is better, I less scary to comunicate in English"

## How you feel about this project in one sentence

The students were asked to state in one sentence how you feel about this project. In answer to this, students stated:

- "I am very happy I could be here and be a part of this and that I could get new friends."
- "I feel great, fantastic and motivated to work"
- "Great developing experience."
- "It's a nice, new experience."
- "Great idea and topic but some organisational matters could be improved."
- "I think it is so useful project for student."
- "Project was very educational."
- "I feel grateful for this opportunity."

- "it's a very good opportunity to meet new people and know where you lack, or what is your strength."
- "The project was good, but I was expecting more from it."
- "It is tiresome but I enjoy the event, when I meet my team, when I work with, when we finish our presentation."
- "I feel it very well about the nice communication with my group about the result"
- "The project is a great opportunity to work on yourself together with others and to learn new ways of coping with tasks and being creative."
- "Awesome experience!"
- "I feel very grateful for the opportunity to be here surrounded by bright minds from all over europe. I feel happy because i had a very nice time here, enjoyed the city and met a lot of nice people. Excited because as i said in the previous question, I see myself working one day in such a project."
- "I feel grateful about this project."
- "It was an amazing experience where I not only learned a lot about creating an App, but also about myself and at the same time it was a lot of fun."
- "The project is a great chance to get in touch with multiple different people."
- "I really enjoyed working on the project with the other students but there a some things that can be improved."
- "I feel very positive and happy that i could participate."
- "My cultural awareness has also improved, and I have learned a lot of cultural traditions from other Europeans. I feel overall I have become a better European citizen. I also got the opportunity to showcase my own Irish culture and my college which I was very proud of."
- "An experience that I wish to repeat."
- "I Loved this project and all the people involved in it. Happy, satisfied, Excited"
- "I would love to engage in such a project again"
- "I feel like I learnt a lot both personally and academically and also met lots of amazing people and made friends so I feel satisfied with what I achieved during the project."
- "The project was very good chance to grow and develop both academically and personal"
- "I enjoy and gain a lot from this project."
- "It was a valuable experience for me to remember."
- "I feel like this project is opportunity full because I really learnt a lot in these 10 days"
- "This project was valuable learning experience."
- "StartIT broadend my IT experience, as I had few."
- "I'am happy about it."
- "I feel a lot of kids were here to drink and party and I was too old for that. I need my sleep. I liked the idea of the project but unfortunately my team was more interested in drinking and surfing than doing the project."
- "I don't really get the project."

# Three separate words to convey a feeling that you had during this project

The students were asked to give three separate words that each convey a feeling that you have regarding this project. In answer to this, students stated:

- "Teamwork. Communication. Engagement."
- "Motivation, productivity, creativity"
- "Fun Educational Adventure"
- "Fun, Challenging, Tiring"
- "Amazing, Amazing Amazing!!!"
- "Proud, Happy, Confidence."
- "Ambitious, Critical, and delightful experience."
- "adjustment, learn, enjoy."
- "Motivated, exhausted, excited."
- "Tired, enjoyment, experiences."
- "communication, partnership, teamwork"
- "Grateful, proud, fun"
- "Sun Friends Beach Networking Entrepreneurship"
- "fun, laughter, beach"
- "satisfied, Self-confidence, easygoing"
- "Integrated, Proud, Self-confident"
- "Fun Social Demanding"
- "Ambition, creativity, future skill"
- "Excitement. Pride. Amazed."
- "Happy, satisfied, Excited"
- "CHALLENGING. ONCE IN A LIFETIME EXPERIENCE. WELL PLANNED"
- "Growth, Fun, Friends"
- "Tolerate. Grow. Fun."
- "Happy open confident"
- "Constructive educational inspiration"
- "opportunity, challenge, networking"
- "Happy, fun, interesting"
- "Empowering, happy and hopeful"
- "Happiness, friendship, stress"
- "Unorganized, Vague, Unprofessional"

## Short Term Follow-up Questionnaire

In the days immediately after the project, a group of ten students completed a follow-up questionnaire. They were asked to reflect upon the activities that they engaged in during the project, the academic learning that they achieved as a result of participating in the project and the personal growth that they experienced as a result of participating in the project. The ten students' answers to the questions are given below.

## Detail the activities that you engaged in during this project

When asked to "Detail the activities that you engaged in during this project", the students stated:

#### Student A

"The project started with engaging icebreakers to get the conversations going between the students from the different colleges. It gave us the opportunity to mingle with them which later did help us form our final teams. The icebreakers were followed up by presentations and instructions by the mentors and the day ended with us forming our teams and creating a basic idea. The very next day, we were supposed to have our first presentation regarding the idea of the app, its usage, and finance. The following days were used to build up the idea for the next presentation. All the teams were assigned one mentor each, who were there to advise the groups regarding their projects. After the second presentation, the last task was to tweak our presentations, correct any mistakes and professionalize the presentation for the final showdown. The last presentations were held in an entirely different location which added the element of randomness and improvisation. In the end, the presentation and the whole project turned out to be a great experience, one that I will never forget but also would love to go for again."

#### Student B

"I got the chance to work as part of a team in a real life situation, where each team had to do business related research as well as producing a prototype for an app. As well as detailed research and developing an early version of an app, we had regular presentations to prepare and practice.

#### Student C

"At the start of the project we participated in several icebreakers, these allowed us to get to know the new people at the project. After this we made our groups and chatted and partied. We also attended some lectures on application development as well as business models and project management. Once we got down to business my group began to do research around sustainable tourism and problems that we might try to solve. When we chose our idea, we made an initial presentation to explain what we plan to create.

After the beginning presentation we began to build the business plan and app prototype. I mainly focused on the prototype side of the project but I did help out with some research and ideas for the business part. I mainly used Figma and it seemed to be a very good choice as after showing off an initial prototype to some of the other groups I was asked to teach a couple of people on how to use it.

I also did some activities outside of the project such as surfing and exploring the city. I help some of the Belgium and German students how to surf and I walked around Porto with several of the Irish, Finish and Polish students. There were several cool spots to visit and I even learnt how to skim board."

#### Student D

"I created the personas, helped with the app design and prototype and I also helped with routing for potential users of the application."

#### Student E

"We needed came up with an app idea about sustainable tourism, especially in Porto and Gaia. My team and I brainstormed about it, and also come up with a business plan and prototype to go along with that.

The idea we came up with is about an app that will help sustainability by preserving local stories, myths, or folklores and tell the tourists about that so that they can feel more emotional connection with the place they are visiting.

We also did three presentations about our app ideas. My main focus was developing the prototype of the app using Figma, since I am the UI developer of the team, but everyone also contributed in every field.

We also attended lectures on several different topics, such as app development, scrum and agile methods, etc. and also learnt about different countries and cultures from the country presntations we did."

#### Student F

"The activities that I engaged in during this project were:

Working as a part of a multi-disciplinary and multi-cultural team. During the project I work as part of a team that had members from multiple disciplines. In my group two other members were studying a similar computing course. One was studying a business course and the last member was studying teaching. Each member of the team brought a unique perspective to the team. This was my first time working in such a group. The group work I have participated in have been with people I either knew already and/or share knowledge and experience with. As the only member that spoke English as my first language, I feel that I helped facilitate communication in the group. Helping to communicate the ideas and thoughts of my team members more clearly.

Presentations. During the project we created and presented three presentations for app ideas relating to the topic "sustainable tourism". As a team we worked together to decide on the content of the slides and the accompanying speech. As a team we decided on who would take each part of the presentation. Together we practiced our parts and gave feedback to each other."

#### Student G

"In this project, we meet students from other country, Germany, Belgium, Poland and Finland.

We need to do a project in a team and each team 5 member from different country. We need to do an application about tourist or sustainable development goals in 10 days.

Other side of project, we went out dinner with our own college friend, we will hang out to beach or some landmark we should visit in Porto. We also discuss college work and help each other. We really enjoy the days in Porto. "

#### Student H

"I attended lectures in Ispgaya, where various mentors went through a number of lectures relevant to the project. For example, a lecture on the Agile methodology and how to incorporate Scrumwise.

In the first day as a group, all students from across the five colleges participated in icebreakers, which were a great way to meet and get to know the other students.

Across the 10 days we had to create 3 presentations for our project which was a challenging tasks.

I spent various hours brainstorming ideas and concepts with my team, to decide which project idea we would pick.

I did a group presentation with my classmates where we talked about DkIT and Irish culture."

#### Student I

"Within this project we build a prototype of an app that pinpointed all the places to refill your bottles and water fountains.

My role within this project was team leader, I coordinated with my team to make the prototype app and several other fundamentals like cost of development and presentations work at the end."

#### Student J

"After arriving, we have been introduced to the students from other universities through icebreakers, and the dinner, we have been invited to, afterwards. We have then been separated into 10 different groups, with each member of the team being from a different university. The other universities were from Belgium, Germany, Finland and Poland. We have been instructed to come up with an idea for an app that in some way supports sustainable tourism. My group had issues coming up with an idea, mostly because some members of the team didn't like other's idea. At the end, we have gone with my idea of a social interactive trading game called Dux. Our first presentation has gone pretty well as the lecturers liked our idea, all we needed to do is to improve it. I was able to meet many people become friends with them, mostly with other people from DkIT. We have visited a couple of restaurants and places. The second presentation went well as well. My main issue was the fact I had to do most of the work, from the prototype to design and even the business plan. Majority of the time I have spent with other Irish students and asking them advice, as I had hard time talking with my group. The final presentation I wasn't happy with, as I feel like I haven't done well. The rest of my stay I also spent with my friends."

# Detail the academic learning that you experienced as a result of participating in this project

When asked to "Detail the academic learning that you experienced as a result of participating in this project", the students stated:

#### Student A

"The students from DkIT were from different courses but under the same department, Computing. The other students we met there were from different majors which gave us the opportunity to form teams that were a mix of different majors like computing, business, marketing, and teaching. This was my second experience working with a cross-department team. The team, however, was a perfect replica of a real-life situation, an actual team that consisted of developers, business analysts, designers, and testers. Over the course of the project, I heard certain perspectives of the app which I wouldn't have thought about unless it was seen from an entirely different angle. It made me realize how an idea, however brilliant it might be is nothing without a good business

plan. This project made me realize the importance of having a technical and businessminded approach for my further projects."

#### Student B

"I gained practical skills such as app development, communication between coworkers, and lots of business knowledge too. I became accustomed to finding out facts and figures through secondary research on the web, and also dabbled in some primary research in the form of surveys. I learned how to use figma for developing a prototype and I also learned of other technologies and applications that are more commonly used in other countries."

#### Student C

"I learnt how to make a good application presentation. I mainly used the Aplication Figma and instead of making it as a fully "functioning" app, I used it to guide the user through what the would see when using the app. I also learnt about how to organise my timing, normally I struggle to communicate under a time constraint. Although I was we acquainted on most of the features of Figma I did learnt about the component feature which is extremely useful in organising work for easy collaboration.

I learnt more about the process behind designing and developing an application and how to tailor a product towards the target user.

I also gained a small perspective on how business plan is made and ensure that the product is possible.

I also got to use the Canva application which is an similar to PowerPoint. It allowed several people to edit the presentation at the same time.

I had to work with students from different courses, across different countries as well as different language. I ended up being the English checker, although my spelling and grammar does need a bit of work."

#### Student D

"Public speaking, Figma prototyping tool and communication in a team."

#### Student E

"Since my work is mostly related to the UI/UX of the application, I learnt mostly about UX design and research, which is closely related to the UX Design module I did last year.

I did a Figma prototype which implemented design principles and usability, while also making it look aesthetically pleasing with the colour choice, layout, fonts, etc. I really enjoyed doing this and I am happy that I actually get to work on something I enjoy doing.

The other thing I learnt is also about business and marketing plan, although it is not really closely related to what I am studying in DkIT, I feel like it is still an important thing to learn for the future, since the many things in the world is closely related to those field of studies."

#### Student F

"Throughout the project I was able to use some of the knowledge and experience I had gain from modules like "Applied Software Development Principles". The project allowed me to have an experience closer to going through the early development stages of an app in a work scenario.

By working with a business student, I learned more about the business side of app development. Calculating costs, estimating revenue, and turning this information into a business plan. As a computing student, my experience so far has been focused on the technical side of app development. In the future I hope that I will be able to incorporate some of what I have learned into my own projects."

#### Student G

"I learned a lot from my team member. They are really professional in their specialty. Marthe, she doing well on business plan, Tara, she has leadership skills, creative and problem-solving skills. Karolina, she know business and IT so she help both side. Hritik, he is expert in IT and application design. I learned a lot of business part in this project because in college I was focus on IT so after this project, I also have some business knowledge. In the last day, I also done a presentation and my team member help me a lot.

Our application is about helping special need person be easier to find place or activities that suitable for them during their travel in the world. Our application concept catches a lot of mentors, they also give us feedback to help us improve the application. I hope this application will be on market."

#### Student H

"I learnt how to improve my presentation skills. For example, speaking slowly and clearly and also projecting my voice so everyone in the audience could understand my part in the presentations. I also learnt about how to introduce ice breakers into my presentation, so that I could engage the audience more with the presentation.

I learnt more about the process behind designing and developing an application and how to tailor a product towards the target user.

I also gained insight into how to create a business plan and ensure that the product is feasible.

I became more experienced in developing a wireframe using Figma. For example, I learnt about the component feature which is extremely useful in organising my work for easy collaboration. This helped me greatly when creating the protype for Ask Us.

I also got to use the Canva application which is an alternative to PowerPoint. I found it allowed me to be more creative in designing a visually appealing presentation.

I had to collaborate with students from a variety of courses across different countries while creating the project. This was a challenging process which offered me insight into the workings of a multi-disciplined project which our team adapted to and overcame in the end."

#### Student I

"Within this project there was many difficulties, but my main difficulty was to organize peoples roles within the project. Learned how to manage a team and talk to people from various different backgrounds."

#### Student J

"I have learned about the process of prototyping and designing a mobile app, as I have never been interested in mobile apps before, it gave me some good insight. Seeing the ideas from others also gave me new ideas on how to approach design and concepts."

# Detail the personal growth that you experienced as a result of participating in this project

When asked to "Detail the personal growth that you experienced as a result of participating in this project", the students stated:

#### Student A

"Public speaking, presentations, and socializing are important and yet feel hard sometimes. Being on the project and being motivated by everyone made me feel very confident and I have returned with the confidence that was instilled in me during the project. I have made friends with students from across different colleges and each of them taught me a different thing, a different angle to deal with a problem."

#### Student B

"I learned how to take constructive criticism on board so that I can always improve on my work. This is a very valuable skill for all aspects in life. I learned to speak up and to voice my opinions, because everyone needs to participate in order to function effectively as a team. I found myself often taking charge and bridging the gap in communication between other team members, encouraging them to engage and discuss their ideas with one another. I also learned to deal with pressure in a fast-paced learning environment, and just how much you can achieve in a short space of time if you really put your mind to it."

#### Student C

"Normally I struggle with working in teams due to bad experiences in the past but because my partners in this project were really nice and cool people I hade a lot of fun and had the best time I had ever had in a group project. I noticed that I am good at organising groups and splitting work among each other. I also learnt that when everyone does their part work can flow quickly and feedback can be easily applied to projects when everyone is on the same page and have seen what everyone else has done.

I also went out more and explored different new activities where I socialised and partied with many of the other students in the project, not only my group but people from other groups. I also learnt how to use feedback and apply it to our project visualising it as a user not only as a developer."

#### Student D

"Greater self-esteem and knowing that I can look after myself on my own in a strange place."

#### Student E

"Personal growth I experienced as a result of participating in this project is that I learnt to improve my public speaking skills by doing several presentations. This boosted my confidence as I get used to speaking in front of large groups of people.

I also learnt more about teamwork. My team consists of people from different countries and they have unique personalities. I learnt how to handle them and clear things up since almost all of them are quite opinionated. It is a new experience for me since I've never worked with this many opinionated people, but it is also a good thing since we can learn from each other's opinions and thoughts.

Another thing I learnt is how to handle stress and pressure and also time management, since there were lots of things that needed to be done in a tight deadline."

#### Student F

"As a result of participating in this project I experienced personal growth. I feel I became a more sociable person, being placed in a setting where I didn't really know anyone beforehand, force me to become more comfortable talking to new people. As a result, after returning from the trip I have felt more comfortable initiating conversations with new people.

I feel my public speaking ability has improved. I know that I am not the only person that finds public speaking nerve wracking at times. In my group I took on a leading role in our presentations. Being in that position has made me more confident in my abilities.

I have gotten to know people, some of who I likely would have never interacted with except for this project, both other students from my own college and others from across Europe. I hope that I will be able to maintain these personal connections as time from project continues to pass."

#### Student G

"After this project, I met some new friends from our college. I don't know them before but now I knew them. They are really friendly to me and they are funny. I be more social than before. I been a long time didn't do presentation and now I make it. I met a lot of amazing and talented people, I really gain something from them when we talked or worked together, like be more organise, braver to say opinion and more social life."

#### Student H

"I struggle at the start with engaging with my team. There was a communication misunderstanding, and this did hold our team back at the beginning. My team had a lot of strong heads which meant we did clash quite often at the beginning. However, as the project went on, I found ways to engage and community more with my team.

My team's initial idea was to create an application for locating an showing bins in Porto. However, this idea was not liked by the majority of the team. We went back to the drawing board to brainstorm and develop a new idea which we were a lot happier with.

I learnt on this trip that its fine not to have the best project and the best application. Sometimes it's ok not to be the best. This experience was not about just academic excellence but rather more about improving myself personally. I had such a fantastic experience social on this trip where I met fellow students from DkIT which I really wish I knew before this trip. I made great friendships for life, and I think my college experience social will be a lot better because of this trip.

I feel more confident in presenting my ideas and concept and I felt both my technical and soft skills have improved a lot. I tried out new foods on this trip such as sushi which

I loved. I always laughed in the social parts of this project. This project helped me to remember that college is not only about improving yourself academically but is also a personal journey for me to find myself.

If I have learnt anything from this trip is that "There is no greater danger than playing it safe."

My cultural awareness has also improved, and I have learned a lot of cultural traditions from other Europeans. I feel overall I have become a better European citizen. I also got the opportunity to showcase my own Irish culture and my college which I was very proud of."

#### Student I

"I had to coordinate with a lot of people throughout this project my public speaking has gotten better because I had to present our idea to a lot of individuals over 50 people, at the beginning it was nerve wrecking but at the end I got more comfortable talking on a stage"

#### Student J

"I have become much more outgoing and communicative. I have connected not only with the students from other universities, but most importantly I was able to connect with people from DkIT. I have also gained confidence to work more on school and personal projects after this experience."

## Six Month Follow Up Survey

A follow up survey was conducted six months after the Porto project. 13 students responded to the survey.

#### General Feedback

The students were asked to give their general feedback about the project. The 13 students gave the following responses:

#### Student AA

"It was a very good and learningful experience. It was for me the first time on a plane what gives me a little bit of stress. And it was also the first time I was so far away without my parents.

I liked the time in Porto very much, I made friends there. I am still in contact with someone from Poland.

So for me it was a very good thing to participate and I want to recommend everyone to participate!"

#### Student BB

"The people I worked with were people from a variety of background from people are civil engineer, software engineer, Hotel hospitality management, Information technology majors.

The concept of the project was to build a prototype application that helps and promotes sustainability and tourism. Each team member brought their expertise to the table, and we collaborated with one another to make our prototype app called AquaUp come to life.

It was very interesting to see people from different background come up with ideas from software to hardware and finance experts. There were a lot of issues to consider, each problem had a solution, and with a strong team we found solutions.

Each person from my team came from different colleges from around the globe, I am very thankful to partake in such a project."

#### Student CC

"The trip had ups and downs but over all it was a great experience. I was pleased to be early on site before the event but the departure time was a bit sad. Would have been nice to enjoy the afterparty and sleep one night well before the flight back. The acomodations were ok, breakfast was not as promised and some time was moldy. Our teachers went above and over to make us comfortable when our rooms had a huge mix up first night.. and second.. and third. At the end we got there. Fun times."

#### Student DD

"For me this was nog the first time going to another country alone. I have been on Erasmus, I have traveled alone for a month, etc. So for me this was something I loved because I love being out in the world exploring and experiencing new things.

I found the project quite interesting. I was very educational and fun to work together with people from different nationalities and different backgrounds. It was an opportunity for me to learn from others, but also to work together as a team.

For me there were no Boeing aspects. I think all the work was divided pretty well. So we had enough time to meet the deadlines and to bring everything to a good end."

#### Student EE

"The experience during the Start-IT project in Porto was absolutely amazing. It was a fantastic opportunity for me to learn and develop my skills and I am incredibly grateful for this experience.

This was not my first time travelling without my family. So, I did not have any problem travelling with friends and meeting new people.

I was extremely happy to find the other teachers/attendees to be very welcoming and inclusive. It was inspiring to meet people from different countries and backgrounds who were all interested in developing their skills, and I had great time with them. The shared experience with the other attendees was one of the best part of Start-IT project. We had engaging discussions and activities throughout the project that allowed us to share our experiences and learn from each other. Since we had to develop a business plan and a mobile application for the project, it was exciting to witness and learn; not only about how my group progressed but also how other groups were developing new ideas and developing it.

Overall, I think it was a very good experience, and I felt inspired and energetic when I the project ended. At the same time, I was also sad because it ended fast. I honestly do not have any negative experience during the project. I got maximum support from my friends and teachers there to learn and grow. I also enjoyed extra activities that the project had organized. The beach party and the last day party after we finished project presentation."

#### Student FF

"It was my first time outside of the country without my family members, because I have traveled before with my grandmother in EU. It wasn'; that, because the people in my university that came with me were all great and so where the people from the other universities. I didn't feel homesick or lonely during the trip.

So, because of that the experience was very positive and meaningful. It taught how to work with different people, who has not the same background as I have. Also the differences between cultures gave me chance to reflect when is good to be direct with words and when not.

I really liked the bonding session in the yard of ISPGAYA. And the welcoming party at the beach was perfect. Boring part was when the project ended!

I want to thank for this great opportunity, people that made this project happen and hope that this project will create similar experiences in the future for the new students."

#### Student GG

"I am very happy that I could take part in Start-IT last September. My main goal in this project was to meet new people and improve my English language skills. I am happy because I did both. I met amazing people and even after the project is over, I still keep in touch with them. Now I feel better about talking to everyone and I don't feel as shy as before. Now every time I meet with friends from my faculty I recommend this project to them and describe my great experience."

#### Student HH

"It was my first trip abroad, which I consider very successful. I met many wonderful people, gained a lot of knowledge, gained more confidence in international contacts and also had the opportunity to visit Portugal. The whole project was well organized in every way. It was a great adventure and a test of your skills. The contact and cooperation with others were very successful. Everyone knew what to do and when it was time to work and when to relax. I was involved in the idea and implementation from start to finish because it was something new for me and I was very interested in it."

#### Student II

"It was the first time I had travelled abroad without my family. At first I felt a bit overwhelmed, but in a group of friends it was easier to cope with everything. After a few days I got used to it and felt confident. The representation from our university was great and we got along well. We worked effectively in the project group, but we didn't get on so well outside of project work. The hotel was excellent as it provided a place to meet and integrate. This is very important to me. The undoubted disadvantage was the food. The advantage of the project was the opportunity to work in an international team from different faculties - IT, management, etc."

#### Student JJ

"I really liked and appreciated the excursion to Porto. It was a nice way of meeting new colleagues from my own school and colleagues all over europe.

The balance between work and free time was very good. The given task could have been more broad. I think there would have been better products if it hadn $\tilde{A}$ ¢ $\hat{a}$ ,  $\neg \hat{a}$ , ¢t to be mobile apps. And the first lecture about Gaia which has not taken place should have been replaced in some way. It made the creation process way harder. I also think the mentoring system should have been structured differently. I felt there was no mentor interested in our idea which is a bit discouraging.

Having a group consisting of 5 different nation was a good idea, which should be kept that way. It also improves multi cultural communication"

#### Student KK

This student did not give any general feedback.

#### Student LL

"It was a really great experience. I had a chance to practise my english and meet new people from another countries. The project helped me to become more confident in speaking english and also when talking with people in general."

#### Student MM

"Overall I found the experience very enriching, I enjoy meeting other people and learning about other countries and cultures.

I know that it was normally the intention to also involve Portuguese students in the project and that this was not possible in the end, but I felt that this was a loss for the project. Ultimately, the project was about sustainable tourism and the ideology behind it is that tourism and the local population go hand in hand. Our group coped with this by talking to locals and asking what their needs and expectations are, but this could have been easier with a Portuguese in the group.

Since I'm following teacher training, my tasks were mainly: researcher, what is there already? How is sustainable tourism currently presenting itself in Porto? What could be possible? In my opinion, we had to discover a lot ourselves: What is sustainable tourism? I noticed that many group members were not completely on board and this limited the possibilities because you cannot brainstorm fully. There are always leaders and followers in a group, but if not everyone knows what the added value of sustainable tourism is, then it becomes difficult. Perhaps a little more attention could have been given to this on the first day? Because a good start could have facilitated the brainstorming process.

It was a very large group and I found it difficult to form groups myself from there, we didn't get much time for this either. Maybe some kind of speed dating would have been interesting? Of course this is not possible with everyone, but that would have made it a bit easier for me. Conversations quickly tended to 'what programs can you work with?' Which is understandable, but of course that doesn't mean anything to me and I wanted to know something more about someone's personality than the more practical side.

What I really liked:

- clear planning of the week: how far should you stand, what should you have finished at the end of the day?
- more formal presentation on the last day, clear goal to work towards
- each group had a team member from a country, which is very enriching.
- different courses that can reinforce each other, imitate real life, because even then you will have to work together with all kinds of different backgrounds.
- we had enough free time to get to know Porto and the fellow students in a different way
- joint lunch, breaking out of working in your own bubble and letting in other input
- your own place in the student house, away from all stimuli
- the joint dinner, to meet your fellow students and the other teachers in a more informal way."

## Desire to Participate in Future Projects

The 13 students were asked the question "If offered, would you participate in a similar project in the future?".

All 13 students responded "Yes".

When asked to give a reason for their answer, the 13 students gave the following responses:

#### Student AA

"It was very educational and fun. You get to know the other cultures and how they deal with certain things in other countries. And you make friends for life!"

#### Student BB

"I really enjoyed the project and met a lot of nice people with smilier interests.

I have made a lot of friends from other countries, and got closer to the people from my own college as well, travelling to a new country and experiencing a new culture was nice as well."

#### Student CC

"I'm too old to party all night with the young students. I'll leave these experiences to the youngings."

#### Student DD

"Because you always get and learn something out of it."

#### Student EE

"I would definitely participate in a similar project. The opportunity to connect with teachers and other students and share experiences and strategies was truly valuable, and I hope to continue building on those relationships in the future."

#### Student FF

"Meeting new people, sharing information and learning new things/cultures is always welcomed."

#### Student GG

"Because I think this project is great. I have described everything in the feedback input field. Unfortunately, I am finishing my studies and will not be able to participate in such a project in the near future."

#### Student HH

"It is a very good idea to test your skills and improve or gain them. In my opinion, this is the perfect opportunity to experience a great adventure, meet interesting people and visit interesting places in the world."

#### Student II

"I enjoyed the opportunity to participate in the project, I would love to have another one. It's a shame that it's no longer possible."

#### Student JJ

"It was a great experience I like to think about. I made new friends and many connections. I learned a lot about myself and it forced myself out of my comfort zone."

#### Student KK

"It was fun and creative. I love meeting new people and work in a group"

#### Student LL

"If I had a chance I wouldn't hesitate."

#### Student MM

"I would like to participate again, but only if the project has something more to do with didactics or education. I also found this very enriching, since STEM is the future and we certainly have to motivate enough students for it. Since I don't teach scientific subjects, this was another way for me to get acquainted with the IT world. But I would like to get a little more out of it another time that I can also apply and use in education."