Title of case study
Environmental Planning and Management Project: Client led Group Projects

Introduction
This case study focuses on a module that facilitates learning through the process of environmental consultancy. Students gather evidence and relate this to their practice of contextualising and formulating solutions to real-world environmental problems. Touching on all the Liverpool Curriculum Framework hallmarks, particularly authentic assessment, students are empowered to actively manage their own learning, by collaboratively working as groups and delegating tasks and building confidence by owning and leading their own projects, enhancing key employability skills and gaining valuable experience. This successful approach has been awarded a Learning & Teaching and Student Experience Award in 2021, and continues to receive exemplary student feedback, such as;

"Working close with a proper client made us realise how hard we have to work in order to correct externalities in the environment and to figure out solutions, which shows we are capable of delivering great outcomes at such a young age!"

Staff Lead
Urmila Jha-Thakur

School/ Department
Dept. of Geography and Planning, School of Environmental Sciences

Faculty
Faculty of Science & Engineering

Contact Details
urmila1@liverpool.ac.uk

Name of course and module (if applicable)
Environmental Planning and Management Project, a compulsory module as part of MSc Environmental Assessment and Management which is IEMA (Institute of Environmental Management and Assessment) accredited.

Please briefly describe the activity undertaken for the case study
In terms of the activity, this is a group-based module which is client-led. Every year we can have a different client and we develop a brief in collaboration with the client. The activity is that the students work in groups like in real-life situations as environmental consultants. They offer their services to the client during which the client interacts with them and the activities that they produce at the end of the module is a report and a presentation, and they interact with the client. So, the client looks at their work, and in marking their work I take the clients view onboard. That's how the activity is organised.

How was the activity implemented?
Before the module starts it is quite a lot of work, because I collaborate with the client looking for a topic that is relevant. Now, this module is the project bit of environmental

assessment and management. In semester one the students learn the theoretical side of things, so the topic has to be something that comes from that fundamental subject area but in which the students are implementing it. So, in terms of how we implement this module, we develop the brief and the brief may have several components which we divide into tasks, so the students will have to do several tasks. The tasks are all related to each other and sometimes these 7-8 tasks are then grouped into two assignments. Although the students are looking at different tasks, they are basically doing their assignments from the moment that they start the module, so the pressure is not all at the end, they have weekly deadlines for themselves.

Did you experience any challenges in your implementation? If so how did you overcome these?

Some of these challenges are general and they happen every year. The first kind of challenge that we face is that the case studies from the clients are from the UK, and mainly England, and we have a lot of international students. So, to keep the pace right for students who are international as well as those who may have work experience, there are quite a bit of differences, so I have to work very closely with the groups understanding where they are, and individually face-to-face I then work with them to make sure that they come up to the right level. Eventually sometimes what happens is that the group that was weakest at the beginning becomes the top group at the end, but that means that there is a lot of bespoke support that the groups get. There's a lot of support that we have to give to the student groups.

What challenges, if any, did the global pandemic raise for you, and how did you maintain a successful implementation during this period?

There were technical challenges – let's start with the technical bit because of course we were asked to do it all online, and this is a module where I interact with the students very closely. So, to have it all online was daunting at the beginning. The first challenge was making the groups. I would usually ask the students to decide which group they would go into, and if they were struggling, I would help them, and all of this would happen in the same session. Forming the group is critical – you start working immediately, so if your group is not decided you are really losing time. In order to facilitate that here, what I did eventually was I gave them a working list using Canvas which they could interact with, and I asked them to form the groups. I was a bit worried how that would work but then I saw some groups were very quick, very proactive, and some that were struggling so I fit them in. So, the working live document was helpful, replacing what we usually do in that class.

The other challenge was how would I work with them in groups. This was partly because I was not aware of the best way to use Microsoft Teams. Initially we had the class and we decided on the groups and then what I tried to do was manually put them into the groups once the groups were decided. This was a very big class, 50 plus students, and to manually do this online stressed me out quite a bit, so eventually what I learned was that Microsoft Teams channels was the best way, and in fact it worked better than the normal way. Microsoft Teams channels are consolidated so I could see what they were doing, and they would mention my name and I can answer their questions promptly. Some people may see this as a problem because they are always online, but I had this approach anyway, so it helped me to enhance that efficiency. Even for the groups, earlier they would have different forms of communication but here in Teams channels they did not have to

maintain minutes and collect stuff because it was all there. They wrote minutes but it was all consolidated in these channels, so this is something that I would like to take forward.

How does this case study relate to the Hallmarks and Attributes of the Liverpool Curriculum Framework?

Digital Fluency

This module links with all the hallmarks of the Liverpool Curriculum Framework and does so very intricately. Starting with digital fluency, because this was an interactive module, we were working within Microsoft teams, they were working in team's channels, this was embedded in how we were going to deliver this module, and not only for students it enhanced my digital fluency as well. The other thing apart from using Teams that was useful was we were also encouraging them to join the LinkedIn PGT group which I have developed for all PGT students because I am also the PGT director for the School of Environmental Sciences.

Though we encourage them to join this platform, the students this year made much better use of it than what I had anticipated. For example, students were interacting with contacts from other environmental consultancies via LinkedIn. Furthermore, they used LinkedIn to ask questions and collect data for their project. At the end of this module, I usually give each group a certificate saying what they did and how they did it, and LinkedIn was flooded with appreciation of the module, at the end. There was so much interaction, and I did not anticipate this.   Apart from Microsoft Teams this was the first year that there was so much interaction on LinkedIn about the subject, about the topic, about our programme in the University, so it really was remarkably successful that way, how it linked to all the digital stuff that we have.

Authentic Assessment

That is what this module was awarded for because it gets as authentic as possible. Every year we work on a new issue, and this year the planning reforms that are happening, and we are also drafting a paper on this. Based on the student project, we are being able to directly inform the Institute of Environmental Management & Assessment (IEMA) steering group.   The chair of IEMA steering group was our client, and I am also part of the steering group, so the outcome of the project is going to feed into the advice that we can provide to IEMA. IEMA plays a role in providing advice to the government. So, it is very authentic and timely.

Active Learning

We are giving them the problem and they must work it out. We give them a topic and they must understand it and do the research, find out the background, think of recommendations, and work it out with the clients. It is about putting them in the deep end, so their learning happens at quite a fast pace. This is only possible because they have done the theoretical side of things in the first semester, so it is embedded in strong theory – but at the same time this module is about active learning. Of course, they are constantly being supported and we make sure that the group is working in the right direction.

Research-connected Teaching

For environmental assessment, we are one of the most active research centres in the UK currently. We also have links with the sector, with IEMA, and what we are doing in this module is also connected to other academic outputs. For e.g., this year's project was on Environmental Impact Assessment Scoping stage, and I am drafting a journal paper as well

as a book chapter on this. Furthermore, the results can be fed into IEMA. So, it is absolutely entwined with research.

Confidence and Global Citizenship

The best thing I like about this module is how much confidence the students gain by the time they finish the module. The students take ownership of the project. So, they work out how they are going to divide the task, and we let them know that it is about using each other's strength to produce the best possible output. Marking is based on how a group harnesses their member's potential to bring out the best result. Hence, everyone does not need to make the presentation. Some may be gathering the data, some preparing the slides while others doing referencing. Therefore, even if you are not the star performer on stage, but you have given your best efforts, and this is evidenced in the minutes of the meeting and in peer view, this is what matters. What we try to train them in is that you do not have to fight to get the best output, you must harness each other's skills. So, people who do not feel confident in presentations but who know how to do great PowerPoint content can equally shine. They feel confident that they are contributing and that is appreciated. They do not all have to do the same thing, which is good.

Education for Sustainable Development (ESD) develops the competencies required for students to act on, question or interpret knowledge. Which of the key competencies for sustainability are improved by this activity? **(refer to [The Quality Assurance Agency for Higher Education (QAA) Education for Sustainable Development Guidance](#) for more details)**

Student employability is greatly enhanced, because just from this module, in the past students have the connection with the client and have secured a job. At the same time this is an IEMA accredited module which means that they become a graduate member of IEMA then they can facilitate a fast phased approach to become practitioners. So, it is very much about employability.

Time management is something that the students learn as well. Within the project, every week they have to set their own goals, they have to take ownership and manage the process. We are there to help but it is their project. They do that for themselves, and I stress to them that this is their opportunity to shine and connect with possible employers, and they have done that wonderfully this year.

Students have to work collaboratively in groups. It is challenging. They must face real-life clients – sometimes they can make mistakes. For example, how they speak or what they ask. One year, one of the students misspelled the clients name and the client was not happy at all which also affected the group's mark. It is so unprofessional to not take note of the client's name. So, they learn how to go about working with clients in a professional manner. Sometimes the client makes a mistake, and the student has put it very bluntly, so we have had to highlight how you collaborate with clients at a professional level. Also, collaborating with me and fellow students is also important for the project to be successful. If you cannot collaborate with other students effectively, then there is no way that you can do well in this module.

Integrated problem-solving competency – this is an interdisciplinary module because it is taken by students from geography and from planning - they come from a wide variety of

backgrounds. Environmental Assessment itself is interdisciplinary. Students have to write their project in a way that can be understood by anyone across any discipline. The client can be from a different discipline as well, so they have to solve that problem. It could be qualitative, quantitative, or they can use mix approaches in their report as long as it is explained in a way that the common public can understand.

One of the things we make the students do the first time that they form their groups, is that we ask them to discuss their strengths and weaknesses and what they want to achieve. This way they can also set their personal goals of what they want to achieve for themselves while participating in the module project. Hence, they identify their own starting point, and they all have their own personal goal that they want to achieve outside of the bigger project, and they then bring that into the project. The module encourages self-awareness and personal development amidst group work.

This module is accredited by Institute of Environmental Management & Assessment (IEMA) - could you expand on how the IEMA Sustainability Skills are integrated into the module?

The first thing is the topic – environmental assessment, is about delivering sustainability. Environmental impact assessment (EIA) and strategic environmental assessment (SEA), which are the tools that we are teaching the students help decision making to incorporate environmental considerations. The subject and the tool that we are teaching here itself is about delivering sustainability, but we emphasise on the environment sustainability side because we believe that in the whole discussion into sustainability, environment is the weakest link.

We take a real issue or topic, which deals with sustainability, so we are trying to deliver sustainability for the client. The students then engage with that topic area, they revise what they have learned, they see it in practice, and then they provide recommendations to enhance real-life sustainability problems.

The students come from a wide variety of disciplines, and we look for students who are passionate about sustainability and the environment. When they bring together their expertise from these different fields in creating solutions, we think that this is an important kind of trademark for sustainability – it is not compartmentalised. If you are not learning from a holistic picture, if you just look at a very narrow perspective you will miss balancing social sides and other sides of things. So, when we look at delivering sustainability using a multidisciplinary perspective, it helps the students to understand how complex it is to do these trade-offs between social, environment and economic factors because they learn to see it from a holistic point of view. I would say these are the three main things that enables the module to deliver sustainability skills.

How could this case study be transferred to other disciplines?

This is a client-led, active, authentic-assessment module, and though it is challenging to transfer these attributes in its entirety to other modules, certain components can be transferred relatively easily. For e.g., the students really appreciated interacting with the clients directly. This changes the chemistry of the class immediately. When they ask questions to me it's different, but when they ask questions to a real client who is from a consultancy, plus has all this experience, the whole discussion is at a quite different level and the students themselves have said that it felt so good, so real. They have not

experience this in any other module where they are directly having this question-and-answer session with the client. Of course, the client also has to be supportive, so you must work on that relationship. I have taken inspiration from this, and I have then used this approach in my other module, and it works really well. It is good to let students be able to interact freely. There should be some structure in terms of the topic and what kind of questions they can ask of the client, but it works well. However, I must point out that based on experience from other modules it is possible that sometimes students do not ask any questions. The only time they ask any questions is when they think it is related to assignment that they have to do. Then it becomes even more effective because they know that this is their chance to know what to write so they are more 'at it.'

Reflecting on your experience, what advice, tips, or guidance would you give anyone wanting to implement this activity in their discipline?

The most important thing is that this becomes a very intensive module. You would only want to do this if it relates to your core research or if this is the thing that you are about. If you are doing a module that is a tangent to what you do, then you will not be able to take it to this level - there is no shortcut to it. I did employ my PhD students who are completing a PhD in environmental assessment and management because it is good that when we I am interacting with the groups I am trying to go to each group and speak to them, but the student demonstrators are also available as support for the student groups. The key thing is you must begin early to give the module that structure - there is a lot of planning that is involved at the beginning – it cannot happen as a last-minute thing. The last point I would like to emphasise is that this is not a new module, this existed before I started teaching it. But the one thing that has changed is that every year we used to have a new client, but I have changed that. Once the client works with us and they like what we do, they usually want to continue as they get a lot of value from that interaction. Hence, now I usually work with the same client for 2-3 years depending on what the project is or how much time the client needs. That way you gain more from that project instead of having to do a new one each year. The overall topic may remain the same, but the focus may change. It is good to stick to a client a little longer rather than do a completely fresh project every year.

References

- The Quality Assurance Agency for Higher Education (QAA) Education for Sustainable Development Guidance
- Institute of Environmental Management and Assessment (IEMA)