

### Faculty: Business School

**Department: N/A** 

Module name: Managing Innovation

### **Degree: BPES**

Level: Undergraduate (Level 6)

Approximate number of students: 60

Weighting: The group project weights 50% of the final grade. The group project grade is calculated as follows: the Part A comprising the Tech Scenario (20%), the Part B comprising the Advice (50%), and Final Oral Presentation and Q&As (30%)

## Module ECTS: 5

Module type: Varies (elective for some departments, more embedded into the programme for others)

**Insights colour key** 

**Educational Developer** 

Inclusivity

**Learning Designer** 

Registry

Careers

#### Assessment overview

This is a two-part assessment, where teams work in groups. Part A is a creative task, where students develop a scenario describing a small company that developed an invention in an emerging technology area. Students deliver their scenario in the format of a 4-slide presentation, following a provided template. These scenarios are then distributed to another group which will work on said scenario in Part B, the consultancy task. The task is to advise the company in the scenario on how to successfully launch the innovation. All groups receive another group's scenario. The groups submit their advice as a 4-slide presentation which they present (and defend) to their `client' (i.e. another group).

## **Design decisions**

#### **Rationale for the assessment**

The assessment was selected as it is an especially unique way to test students' engagement with the taught material. In addition, students are able to highlight their own personal interests and preferences and selfselect into technology domains of interest, from which to come up with hypothetical yet realistic inventions. This it considered when they are allocated to groups. This enables the students to translate their personal scientific curiosity into a basic product or service concept, i.e., invention.

#### Fit with other assessments and the programme/ module

This is a standalone course and assessment. Given the students' background in engineering or science, a learning objective of this project is to teach students to translate scientific curiosity into an innovation concept. Additionally, to learn to analyse the market potential (challenges and opportunities) of these new products or services (Part A of the assessment), and develop strategies to help maximise their adoption, profitability and impact are key analytical skills the students will be learning (Part B of the assessment).

## Practicalities

#### Preparing students for assessment

Discussing the assessment early in the course is paramount so the assessment does not fall behind after Part A, leaving not enough time to complete Part B. Thus, this includes making sure students are where they should be at set week milestones. Examples are provided only if students ask, as projects are meant to be creative, and not a carbon copy of one shown as an example, replicated on a different topic.

#### **Marking arrangements**

Marking is done with the help of a rubric. Group Project weights 50% of the total grade for the Module. The specific marking components for this Group Project includes the Tech Scenario of Part A (20%), the Advice of Part



B (50%), and Final Oral Presentation during the last session (30%).

There is a co-marker involved from outside of the class (usually the TA), in addition to the lecturer. Both co-markers sit in for the oral presentation, where the students highlight the most important elements of advice (Part B), marking on a group basis where the markers only have a group number, not any particular student names. Both markers mark the presentations, and afterwards exchange notes and discuss any situations where they are completely divergent, and why. If there are any adjustments to be made they readjust. The average of both marks is taken as the final mark for this Group Project.

#### **Feedback arrangements**

Markers mark on paper/ on their own laptop in the presentation, and then the feedback is uploaded to the Business School Marking System and shared with students by the Programme Team via Insendi. Besides the mark, there is written feedback for each Group.

#### **Online adaptations**

During Covid the assessment was run remotely, so there is no issue in running the assessment online or in person.

#### Advantages of the assessment type

- It makes it easier to assess as you are assessing students on two parts. (1) Creativity in coming up with the client technology/invention/company information in Part A. (2) Part B which assesses student understanding, and ability to apply the concepts that they've learnt;
- It is an excellent assessment due to certain general skills students acquire. For example, in the presentation taking questions, students don't know what questions will be posed which simulates a real-life scenario;
- It is an easy assessment to tell who is very engaged. For example, client groups from Part A should have many questions for the Consultancy Group in Part B. In addition, hopefully other questions will come from the rest of the class. If this is not the case, then the burden to keep the presentation energised falls on the lecturer and the TA to ask appropriate questions. To make sure

`silence' doesn't fall, it is suggested to encourage the consultancy group to send their slide deck to the client group a week or so in advance, to aid the client group in having time to come up with plenty of quality questions after the presentation;

- The assessment remains dynamic when there are enough interested individuals who are participating, which makes for a fun course. Participation and engagement is very important and actually it is graded in this Module;
- One additional value is the assessment can be run year to year without having to re-write the design, given that the question/topic comes from the students, and they have to be able to present/ defend it orally, so copying from others (e.g., a prior year project) or from the internet is hard to do;
- It's a great exemplar for actively engaging students in all aspects of the assessment process, starting from choosing their own interests as assessment topics, as well as by selecting their group membership (self-selecting). The ability to choose own area of interest is a great example of inclusivity in action; according to Universal Design for Learning principles, students should be presented with the opportunity to integrate their own interests or their own unique problems to be solved;
- Students are more likely to engage with the client-facing assessment setup, as it very much resembles the tasks that they will be asked to perform as professionals. Taken together with the overall duration of the task, this is a solid example of authentic assessment that values the process derived from teamworking and effective communication and delegation of activities between team members, as well as valuing the end product of the group activity.
- The assessment allows students to develop communication skills and learn how to manage conflict in a group. The assessment is designed in such a way that the team is likely to come up with different views so they will have to reframe what they are presenting which is quite reflective of what they have to do in a workplace when they're dealing with multidisciplinary teams who come from different backgrounds. Students having to defend and validate their ideas is



something that commonly seen in management consultancy interviews for pharmaceuticals and banks - students are asked to present an answer to a problem and then they are quizzed by the interviewer as to why that they have chosen that particular route or pathway which is what this assessment asks them to do.

#### Limitations of the assessment type

- One challenge is the group that creates the scenario utilises hypothetical technology, which it is not yet on the market. This is difficult to assess within some of the core module's frameworks, and it could be difficult for the consultant group to assess. It is a risk on the scenario side, because if it is a bit futuristic, then the consulting team will be missing some of the scientific principles, and technological and engineering principles of how this technology might work. If this is the case, on the consulting side, the students may be assessing technology that is probably not yet ready. Therefore, the challenge could be that they are choosing the wrong frameworks to assess the technology in terms of the advisory work part of the assessment. Essentially this is the call of the lecturer – do you want to provide full creative license, or do you want to limit scope but ensure key principles are employed properly. Overall, this has worked in the past as the students are required to use white papers, technology reports and news media articles (The Economist, Financial Times, The Scientific American, Wired, etc) to inform their Tech Scenarios and related inventions;
- An additional challenge in group work, especially in undergraduates, is freeriding, that is, when people do more work than others. This is a challenge when you are doing team-based project as there might always be students more committed than others;
- The biggest technical difficulty is if a student group's PowerPoint submission will not work, or something being presented does not work in class. To avoid this, it is recommended that the lecturer receives all student presentations in advance, so all presentations are pre-loaded on one computer/ laptop. Thus, when a group comes up to present, it is there. In theory, there is always

the risk of power loss, and the inability to project, but that would be the same with any presentationbased assessment. Having all slides from groups in one place makes things easy to manage.

#### Advice for implementation

- The assessment must be done in tandem with what is being taught in class, as the assessment is running the same time as the module. Be conscious at any given point in time, do the students have enough information to complete parts of the assessment;
- It is recommended to be very prescriptive. For example, the class is told by week 4, X should have been achieved, by week 6, Y should have been achieved, by week 8 and 10. In tandem, make certain in the course students are introduced to the necessary topics allowing them to finish the assessment. The lecturer clarifies issues and doubts during lectures and via Insendi;
- Keep in mind any course drop rates. You cannot accurately form teams if people are dropping the course. The lecturer has handled this in the past by being very frank to the students they should discuss amongst their formed groups if anyone is thinking of dropping, and letting the students working it out for themselves. Monitoring and coordination of the group formation at conception of the assessment is very important. If not, for the coordination of the formation of the teams on time, with a quick turnaround of receiving scenarios submissions and questions from the client groups, the assessment would not work;
- Exemplars can be a brilliant way to illustrate benchmarks to students, particularly when the assignment can produce a variety of different – but equally acceptable – outputs. Benchmarking and keeping on track is a good way of sustaining student motivation and interest to not only complete the task, but to complete it to a good standard as well.
- Ensure that enough time is spent to allow students to form successful groups and establish rules of engagement amongst themselves. <u>This</u> <u>case study has some great ideas for activities that</u> <u>help students develop different aspects of group</u> work.



- In any module that relies heavily on group work it is important to establish common ground rules around group work as well as to be alert to where a tutor might need to step in and reassert rules of engagement.
- When introducing group work some consideration needs to be given to how students with specific learning needs can be successfully participating in group interactions. All students involved should benefit from inclusive practice this means that inclusivity considerations can be embedded within standard practice around preparing students for group work. This can be done through discussion around the allocation of roles and better understanding how others, including those with specific learning needs such as dyslexia, autism, dyspraxia etc learn and communicate. Individuals should be mindful of that and think about the delegation of individual tasks that are appropriate to what individuals can do. Therefore part of preparation for group work is considering how others can be mindful and empathetic towards other group members.
- Having appropriate equivalents is very important to allow for mitigation. What needs to be considered is ensuring that the same skills are being assessed. If this is not possible then the marking scheme needs to be adjusted to account for any differences in the mode of assessment.
- When choosing an assessment diet for the course it is important to consider the ECTS value. A 5 ECTS course requires 125 hours of effort. It is important to reflect whether the proposed number of assessments is appropriate for the amount of effort indicated by ECTS. This is especially the case with group work that in some cases requires more work than an individual assessment.
- With presentations, especially in cases where every student is expected to present, some considerations have to be given to adjustments for students who might not feel comfortable to present. A short presentation shouldn't be challenging to many students yet, some students, for example those with severe autism might struggle. Having an alternative such as a short video, or as in this case a viva would enable to the student to deliver something which didn't mean they had to stand up in front of the group and do

it. Such alternatives could potentially take the stress out of presenting. Providing students with choice is providing them with the option that suits their learning best or limits the impact of their disabilities.

- Some considerations should also be given to how the questions are organised after presentations. For example, one strategy could be pausing after a presentation and ask others to write down the questions to the presenters so that they have some time to prepare. This helps with the auditory processing side of things, i.e. not being able to recognise what needs to be done quickly by impeded understanding of what's being said; that is often present in a lot of disabilities. Speed of response is something which is part of a lot of neurological conditions.
- Peer review is a great example of how to assess the process behind completing the task, and it is designed to ensure that all students are accountable to one another for completing their delegated tasks within the assignment. Peer review could be incorporated alongside some form of tutor-led process-checking mechanism as peer review can at times be tricky to implement effectively without the risk of some students attempting to 'game the system'.
- This example of group work is a more sophisticated two step process. This means that there is a strong dependency between the groups – one group has to submit on time for the other to make their contribution. If the deadline is not respected, it could have a wider impact on everyone else. It is important to manage this kind of dynamics. Creating formative deadlines can encourage timely submissions. Ensuring that there is space between submissions to account for potential extensions without an immediate impact on students is also important. Finally, a strong teaching presence is crucial – making sure there is a TA that can follow up with students and help resolve any issues.