Programme Assessment Strategies

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Big Dilemmas Project

University of Exeter

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Table of Contents

Contents

Big Dilemmas Project

1 Introduction

The development and implementation of effective programme-focused assessment (PFA) strategies are challenging for programme teams. One reason for this is that there is a lack of suitable evidence-based guidance and exemplars. This case study forms part of the National Teaching Fellowship Scheme (NTFS) Programme Assessment Strategies (PASS) project. The PASS project aims to identify essential principles of PFA, which can then be used to implement and test the effectiveness of programme assessment strategies (Hartley et al., 2008). This case study is a contribution to that debate. The case study concentrates on approaches to PFA within the Big Dilemmas Project at the University of Exeter. The Big Dilemmas Project was launched in 2010 with the aim of creating an interdisciplinary think tank bringing together students, academics and stakeholders to investigate society's sustainability issues.

In previous research at the University of Exeter focusing on the medical school (Rodway-Dyer, 2010) PFA was defined as assessment which focuses on stage or programme level learning outcomes (Nicol & Macfarlane-Dick, 2006). This definition has synergies with the QAA concept of 'synoptic assessment':

"An assessment that encourages students to combine elements of their learning from different parts of a programme and to show their accumulated knowledge and understanding of a topic area. A synoptic assessment normally enables students to show their ability to integrate and apply their skills, knowledge and understanding with breadth and depth in the subject. It can help to test a student's capability of applying the knowledge and understanding gained in one part of a programme to increase their understanding in other parts of the programme, or across the programme as a whole" (Quality Assurance Agency, 2006).

This case study follows the potential development of PFA in relation to one programme set up within the University.

2 Context

2.1 The Big Dilemmas Project

It is necessary to have an understanding of the project itself in deciding if the project is indeed assessable and how it would sit within the context of the project. The Big Dilemmas project brings together students from across the University (from a mix of levels) with internal and external experts in a particular field (relating to global challenge) to research and report on future solutions. The Big Dilemma in 2010 focused on the Future of renewable energy in the UK: Lessons from the Severn Barrage (University of Exeter, 2011). The 2011-12 focus is on The Future of Land Use in the SW: Food, water and energy security in the face of environmental change. The Big Dilemmas project has characteristics which differentiate it from other college subjects because of the interdisciplinary,

cross university and cross level approach. At the time of conception it was thought that the project could naturally facilitate a PFA approach to assessment.

As far as pedagogies are concerned, the project has a strong problem based learning as well as cooperative inquiry focus, largely based around a 'Think Tank'. Furthermore, because it is meant to be a collaborative between academics and students very few instructions were given with regards of outcomes and outputs. It was anticipated that this could cause some anxieties amongst students because they are not used to this kind of self-directed working and learning. The expectation was that the students would work through uncertainties and come up with creative solutions because they would be forced to explore their own resourcefulness. At all times the project leader would have a 'plan b' for consideration in case the think tank efforts would stall completely.

The two years in which the pilot ran saw very different cohorts with different group dynamics. In the second year it took quite a while before the group had agreed a way forward, in the words of the project leader, this was "due to a lack of clear thought leaders". It must be noted that during this time of uncertainty the students were initially interviewed. Considering the complexity of the dilemma in year 2, it is still remarkable to see that a significant body of think pieces have been produced. This time not led by intellectual leadership within the student group, but through the coordinating inspirational editorial efforts of an English student.

The Big Dilemmas project features in the Environmental Sustainability Strategy 2010-2015 as an example of how extra-curricular education for sustainability projects could provide inspiration for curriculum innovation. The concept has now been taken forward in the Grand Challenges 2013 programme under the name 21st Century Dilemmas.

(http://www.exeter.ac.uk/media/universityofexeter/campusservices/sustainability/pdf/Sustainability_Strategy_2010-2015.pdf)

This case study seeks to inform assessment strategies for a new programme in which all first year students will participate during two weeks in the summer term.

3 Case Study

3.1 Aims

The aims of the case study are to:

1. Reflectively evaluate the underlying objectives of the Big Dilemmas project by staff and students.
2. Develop scenarios for assessing an innovative interdisciplinary project based on the Big Dilemmas project which is now running for the second year at the University of Exeter.
3. Find ways of assessing the 'cross modular' project and taking it beyond the extra-curricular.
4. Focus on how the interdisciplinary approaches of the Big Dilemmas project can be integrated into the teaching and programme assessment of a new Grand Challenges 2013 programme.

3.2 Methodology

A detailed case study of the Big Dilemmas project was undertaken via an examination of course documentation (including emails and the Electronic Learning Environment (ELE) Discussion Forum). An Action Research process included collaborative inquiry processes with staff and students involved in the 2010-2011 and 2011-12 Big Dilemmas projects to consider and reflect on: involvement in the project, the underlying objectives of the project and the role of assessment (Appendix 1 and

Appendix 2) The evaluation also reflected on how the learning experience could be integrated into a student's learning programme and be formally assessed. This aimed to generate several staff/student led assessment approaches to programme assessment strategies (PASS). The scenarios are aligned with work package 3: the PASS issues paper.

The research processes also included working with the 2011-2012 team to integrate planning suggestions from the participants into the Grand Challenges 2013 programme. This completely new programme aims to embed assessment principles and pedagogic principles of the Big Dilemma to include cross modular integrated assessment. Staff members at both the Exeter and Cornwall campuses will be involved in the designing and setting up of the project and with the development of the assessment.

3.3 Reflective evaluation by staff and students

During this process, one-to-one (face-to-face) interviews were successfully conducted with 13 members of staff involved within the Big Dilemmas project at both the Streatham and Tremough campuses. This process included staff from Education Enhancement as well as academics. One invited lecturer refused to be involved and two were not available. Ten students were also successfully interviewed, again from both sites and 4 students did not respond to requests for interviews and one did not turn up. The initial questions were contextual to encourage people to think about their involvement in the project (Appendix 1 and Appendix 2) and then these were followed by reflective questions specifically on aims/objectives and assessment. Students were also asked to email a weekly reflective diary to the researcher (13 students participated in this to varying degrees) which was combined with a record of postings from students on the ELE forum to create an excel spread-sheet recording student participation/discussion and reflections on learning. Towards the end of the project students were asked to reflectively complete an open ended qualitative questionnaire (Appendix 3) of which nine responded and two students volunteered to be interviewed again regarding their experience of the whole project. **Error! Reference source not found.** contains a summary of the methods.

3.4 Findings – Perceived aims/objectives of the Project

The contextual questions showed that staff involvement in the Big Dilemmas project varied from those that had only been involved in the initial idea and set up within Education Enhancement, to academic staff involved over the whole two years to newly participating academics only involved this year. The difficulties of setting up the novel project and getting staff on board were highlighted by both the Head of Education Enhancement and the Project Coordinator (whose main role is as Sustainability Curriculum Development Manager). The outstanding success of the project reflects on the dedication of the driving force from the Project Coordinator overcoming barriers such as academics receiving so many requests to take on initiatives.

Staff roles include singular and multiple roles covering funding bids, launching the idea, initiative support, provision of resources, student promotion and recruitment, staff management, student management, mentor, collaboration of ideas, facilitate discussion, be provocative, symposium presentations, and provide feedback on presentations and written work from students.

Students were new to this current year except for one interviewee who was a mentor following on from their involvement in the first year. They had all received an email within their college or seen a poster advertising the Big Dilemmas project, causing them to put in an application. Reasons for involvement focussed around the project aligning closely with courses (e.g. MSc in Food Security) or as an opportunity to increase their knowledge in an area which was of interest in an academic environment. Students felt this provided the opportunity to learn more about topics as well as develop contacts and networks for employability by boosting their CV. Students had also received good feedback off the previous students and academics involved within the project. Participation initially for the students meant turning up to meetings and the Think Tank discussions and participating in the forum, as well as reading up on topics.

When asked to reflectively evaluate the underlying aims/objectives of the Big Dilemmas project perceptions varied widely according to whether the interviewee was from Education Enhancement, an academic or a student (Figure 1).

The Education Enhancement staff involved in the initial idea and set up believed that the project linked curriculum with research and that it would build upon the established reputation of the University in the field of climate change. The project fulfilled part of their job targets via the bid to drive sustainability into the curriculum at the University and provided challenges regarding liaison and cross discipline communication. The project was seen to have an important message and topic. The Head of Education Enhancement also wanted to "*challenge ideas on curriculum design and development with a more flexible assessment which could cut across the traditional model of subject area modules*". At the time it was thought that the project had potential to fit in with the PASS assessment objectives (see Rationale for the development of PFA within the Big Dilemmas Project).

Most academic staff could not remember the specific aims/objectives of the project. However, all saw Big Dilemmas as something different, the opportunity to provide something extra as "*added value*", especially to masters level students where they can "*think outside the box*". The competitive element of selection provided kudos and helped to perpetuate this idea. The academics also saw the project as "*current*" due to the interdisciplinary approach and as an opportunity for staff to meet. The idea of getting scientists and humanities staff and students to mix was seen as very important for trying to understand the highly complex picture of real world issues and uncertainties. It was thought that the high profile of the project would increase awareness, enabling staff to use case study material and build it into their own assessment modules, resulting in even more people being involved in the project and creating a snowball effect.

The students all said that they had a "*woolly*" or "*vague idea*" of what the project was about but they could not say specific aims/objectives and were very unsure as to what should come out of the sessions or even the end project. The weekly diary and ELE discussions also showed that students were often unsure as to the aims/objectives of the project and what their role was. They all thought that the symposium was very good and that it was a turning point in helping them to start understanding the project. They felt that it established a sense of setting and was a "*rich*

experience" with it being very well organised, with interesting people. They also found the field trips enjoyable, informative and valuable in helping to get to know each other.

Education Enhancement staff	*Academic staff*	*Students*
• Engage academics with an interest in sustainability and increase awareness. • Increase the profile of sustainable opportunities. • Create showcase good practice project - on what can be done and how it can be done. • Encourage interdisciplinary research even with curriculum differences. • Challenge academic tribes and territories i.e. cultural norms about subject and learning. • Create interdisciplinary bridges by providing time and space to meet. • Show that sustainability and interdisciplinary thinking go hand in hand. • Increase depth and awareness of staff and students on the reality of important multifaceted global challenges i.e. enlightenment. • Improve student skills and employability. • Create a broader model of curriculum delivery. • Strategically engage high level research academics within education.	• Provide students with the opportunity to study a broader curriculum via an interdisciplinary approach with other subject students. • Have a common problem or issue and begin to understand different ways of looking at it – "*expose students to wider viewpoints*" and "*develop a new generation of pragmatic environmentalists*". • Create a research driven student project. • Take research and teaching out of the classroom and into the real world – applied questions. • Enhance the student experience and skills set at the University to increase chances of employability. • Look at the issue of sustainability. • Provide a more challenging academic experience beyond the degree programme. • Create synthesis between academics and get them talking to each other from different disciplines i.e. "*networking*". • Provide a public relations angle for the University for "*valid publicity*" and "*reputation*".	• Debate topics from an alternative stance/different perspective and devise solutions - interdisciplinary. • Bring students together to interact. • Enable students and academics to work together. • Produce "*something*" an "*output*", possibly a publication. • "*To learn from experience*" and the idea of "*personal gain*".

Figure 1: Perceived aims/objectives of the Big Dilemmas project

3.5 Findings – Views on Assessment

In reflective interviews with both academic staff and students it became clear that assessment (of any kind) was not considered to be an aim/objective of the BD project, however, the staff involved in the conception from Education Enhancement had believed assessment could have a role within the project. Their recollections revolved around potential credit points available even at the different student levels, such as undergraduate and masters, and the benefits of "*value added*" experience. It was thought that students would not be interested in an extra-curricular activity if it did not include assessment and credit but the project was considered too challenging to include in a taught curriculum.

Academic staff and students believed that from the start, participation in the BD project was meant to be "*exclusive*", where it is an honour to be selected as one of the 20 'Flag Ship' students allowed access to lead researchers. It was hoped that it would allow students to "*stand out*" and to be "*elite*" which is possibly proven by the fact that "*there has been no shortage of students wanting to do it*". All academic staff believed that this did not require assessment and that it would detract from the value of the experience for students. Several academics thought that the project benefited students on their courses and in one instance it had helped a student complete a public communication document. One academic said that "*it is like seminars – never assessed. Students are at university to be enlightened and want to come for their own personal development*", however, in discussion the same member of staff also proposed the opposing view which was that *"we live in a world where people expect to do work for credit*". Academics could see the project altering to allow assessment in the future but all academics believed it was important that it had not happened in the first few years. It was acknowledged that assessment, such as an event report or Big Dilemmas portfolio, would "*act as a bit of a stick to get the students going as the early Think Tank meetings tend to lack focus*" but the downside was that it could prove to be "*too radical and unfeasible if it were student led because of not allowing students to go wrong*".

Assessment was clearly not a strategic aim/objective according to the academics involved in the project and this aspect of the project was therefore allowed to be pragmatically dropped. However, with the project now firmly established there is the potential to re-investigate opportunities for assessment and Figure 2 shows the advantages and disadvantages of including assessment in the Big Dilemmas project according to current staff and student views. It could be questioned whether the staff views on disadvantages of assessment are really "*just excuses*" or whether they are real barriers which would justify not integrating assessment into the project within the future. Questions on who would mark it only came from staff and it was not an issue considered by the students, unlike the Northumbria PASS research (McDowell *et al.*, 2010) on assessing joint modules or at year end.

Students have given a considerable amount of time to the project and in some cases this has conflicted with coursework, such as dissertations, and exam pressures. As the project has only involved elite students, so far there has not been an issue regarding time input and grades achieved. However, several academics were adamant that it would be a mistake to include assessment at all as it would take away the opportunity for students to be "*over and above the ordinary student in the job market*".

Additionally, major barriers would have to be overcome regarding university rules and regulations for assessment to happen. For example, masters students at Tremough only have formal teaching

until the February of the academic year and after that point they are doing their own research project so staff stated that the submission timings would make it impossible to include project outputs as credits. Academics asked "*who would own it with the current college modules?*" and it was also argued that the constantly changing group of staff for the different dilemmas would make it very difficult in establishing standards. Some academics also said that current modules were working well, did not need replacing and that they could not see a place for an additional module – "*it would not be feasible for student numbers or staffing*".

	ADVANTAGES	***DISADVANTAGES***
STAFF VIEWS	• Focus students' minds. • "*Students would get credit for their time, not just credibility*" which would be fairer given their efforts in participation. • Staff could include commitments as part of their teaching allocation.	• Operational difficulties such as how to assess across disciplines and levels and how it would actually work with university rules and regulations. • Additional work for staff. Who will mark work considering staff participation is not currently acknowledged regard to work load and therefor it could "*potentially put-off academics from being involved*". • Would not just have highly motivated students any more. • Reduce the "*fun*" aspect of the project. • Turn into another module with fixed assessment criteria to be met ("*goal directed*"), stopping the natural evolution of the project due the necessity for clear learning outcomes. It would cause "*rigidity and structure*" and become "*confined by a strait jacket*". • Could end up being "*watered down*". • Belief that students would not be interested as it would just be "*main stream*".
STUDENT VIEWS	• Provide a focus and make it more structured. • Cause people to be more innovative, motivated, more willing and possibly force discussion. • Create student ownership. • More perceived value.	• Would stop being elitist/exclusive. • People would just do it for credits which would be a different incentive to personal gain. • Currently something very different. • It would add an extra layer of stress. • *"Not everything needs to be assessed in life"*". • It would stop the evolving organic process of intellectual research (process) and just become focused on a target (output) rather than emergent thinking. • It allows people to be passionate and self-motivated. • It could possibly stop being interdisciplinary.

Figure 2: Perceived advantages and disadvantages to staff and students of assessing the Big Dilemmas Project

The majority of the students did not want assessment in the Big Dilemmas project and did not think it necessary. Some said that they would not have done it at the expense of other taught module options: one student stated that as they "*pay money to be taught, there would be no point in*

choosing a non-taught option". Students said it would be very difficult to assess due to the project being opinion based with no right or wrong answers and that it would not be comparable with other work commitments or other universities. Additionally, most of the students spotted issues with trying to assess across different subject areas and course levels.

Student D, a maths student, retrospectively noted: "*I personally don't see how it could be assessed as part of Maths, as it's so subjective compared with our other work - there would be disparities between marks, which would most likely mean that not many people chose to do it, as it's more possible to get a higher mark in right/wrong questions they would choose those modules instead."* This idea of risk associated with a different form of assessment also occurred within the Northumbria PASS research on how students see programme level assessment (McDowell *et al.*, 2010).

Student C retrospectively stated: "*I still don't think that BD could be assessed. I think there are already some modules in the university - such as a work experience one my friend took this year - which aren't available to everyone, and are worth more credits than a similar module I was able to do, for the same amount of work. This gives an unfair advantage to certain students, and I think the BD project could lead to a similar thing if assessment was introduced. I don't see how it could work fairly across all subjects. I also feel that the students involved have to have a real interest in the project for it to work, which would be less likely if it were an assessed course."*

All of the students believed it to be a worthwhile exercise and felt that they got out of it different things, which partly depended upon what individuals put into it. The majority all indicated that it fitted in with their own interests and was really comparable to political debating or being a top team sports player i.e. a high level extra-curricular activity.

Student C: "*I think it's nice to see how well you can work when you are more interested in what you are learning. However, because I was doing it alongside my degree, it was put second as I make sure I get done the things which I have to do in order to get my grades. I think I would probably have got much more involved if I didn't have the degree to think about at the same time."* It could therefore be suggested that some form of assessment for such an interesting project would actually improve student grades. This idea of prioritising was also mentioned by other students:

Student M: "*…it was never going to be anyone's number one priority - exams and coursework would always come first. The project doesn't contribute to marks so why would people spend hours each week on it if it doesn't matter for anything over all, besides an extra on the CV. Perhaps more recognition as credits may help motivate people to do this extra work at the end of term when they are drained. Changing the time frame may also help this."*

Students suggested that the project had helped to develop skills such as time management, self-confidence, broad thinking and discussion with others.

Student B on reflection: "*I have had loads of learning curves: working with a group, with behaviour dynamics and learning how to tackle it."*

One student stated that "*the evolving nature of the project allowed students to learn from each other. This made it interesting as the opinions and topics changed and it allowed us to open our eyes to a wider view. We have realised that issues are not straight forward and the complexities about*

what goes on has come out in the discussions. That knowledge is personally useful for studies and the future. We have learnt how to get frustrated about the way things are set up".

Student D: "*In the future, I think it will help me communicate better, and find it easier to work with people who don't approach things in the same way as I do. It has given me the confidence that I know I can work in a fairly self-guided/group-guided way rather than being told exactly what to do."*

There was a general consensus that assessment would probably need both an individual and group aspect. This would align with other assessments allowing for the individual nature of group work ("*important to give credit to participation*") as well as teambuilding etc., with the mixture of presentations and written work forming the nature of Big Dilemmas. Staff and students suggested the following potential ideas for assessment or reward:

- Reflective diary or blog – this would look at the student experience and learning process throughout the time of the project and include skills mapping and outcomes such as presentations. It would help students to develop their own awareness of their learning process and enable them to make formative judgements about their future learning (Boud, 2007). Within this project it would provide 'integrative assessment' as described by Crisp (2012) whereby it provides an activity for students to assess their own learning capabilities and problem-solving capabilities and how this could be adapted in future learning scenarios. Thus giving students their own autonomy and sense of ownership.

- Certificate to say participated – there is potential to create a key skills (or 'soft skills') certificate for potential employers. In the case of Big Dilemmas it would include all nine 'wicked' competencies or attributes identified by Knight (2007): developing supportive relationships as seen by the group work within the project, emotional intelligence from partaking in debate and discussions, group work, listening and assimilating, oral communication through presentations, professional subject knowledge with the addition of interdisciplinary awareness, relating to clients, self-management (confidence and effectiveness) and 'taking it onwards' by developing outcomes. Clearly, within Big Dilemmas this also fulfils the assessment task feature of engaging students as participants in assessment design (Knight, 2007) and would incorporate such assessment rubrics as the six facets proposed by (Wiggins & McTighe, 2005).

- Option to write dissertation/thesis or provide a case study for curriculum – it would not be feasible for 20 students however, to all write their dissertation or thesis on the project.

- Link to Exeter Leaders Award – students are still doing something voluntarily but you can then get additional credit.

- Publications/publicity/final product – a mixture of written and oral (presentation) pieces of work based on the Think Tank issue. Stakeholders are involved in this. This actually forms the current finished product from the project but it is not assessed.

- Peer assessment – but this could end up assessing time and effort rather than ability. However it would provide formative assessment by involving the students by making them

make evaluative judgements about their own work and the work of other students. Again, this would provide a form of integrative assessment (Crisp, 2012).

It therefore appears that the main form of assessment would need to be integrative, with the aim of influencing students' approaches to future learning. This would be applicable across all subject areas and level of study. However, one final comment from Student B (on reflection) does question the value of assessment in rather a thoughtful way:

"My thoughts on assessment have not really changed from what I said before. It could be in the form of a diary with a tiered grading system…..it would be creative and allows for diversity……a broad system that could cover arts and science……..peer assessment possibly. However, I think of that advert you used to get….'priceless'. Really it should be counted as beyond value and not given accreditation….like the advert. Having it accredited won't get students involved more."

4 Rationale for the development of PFA within the Big Dilemmas Project

The issue within the Big Dilemmas project directly aligns with the PASS Position Paper on the case for PFA. This concerns the issue on 'how to design and deliver an effective, efficient and sustainable assessment strategy which ensures that the main course/programme outcomes are satisfied' (Higher Education Academy, 2011a).

Assessment within the Big Dilemmas project would need to specifically address major programme outcomes, not just the isolated component as part of a course. The assessment would need to bring together understanding and skills which represent programme aims.

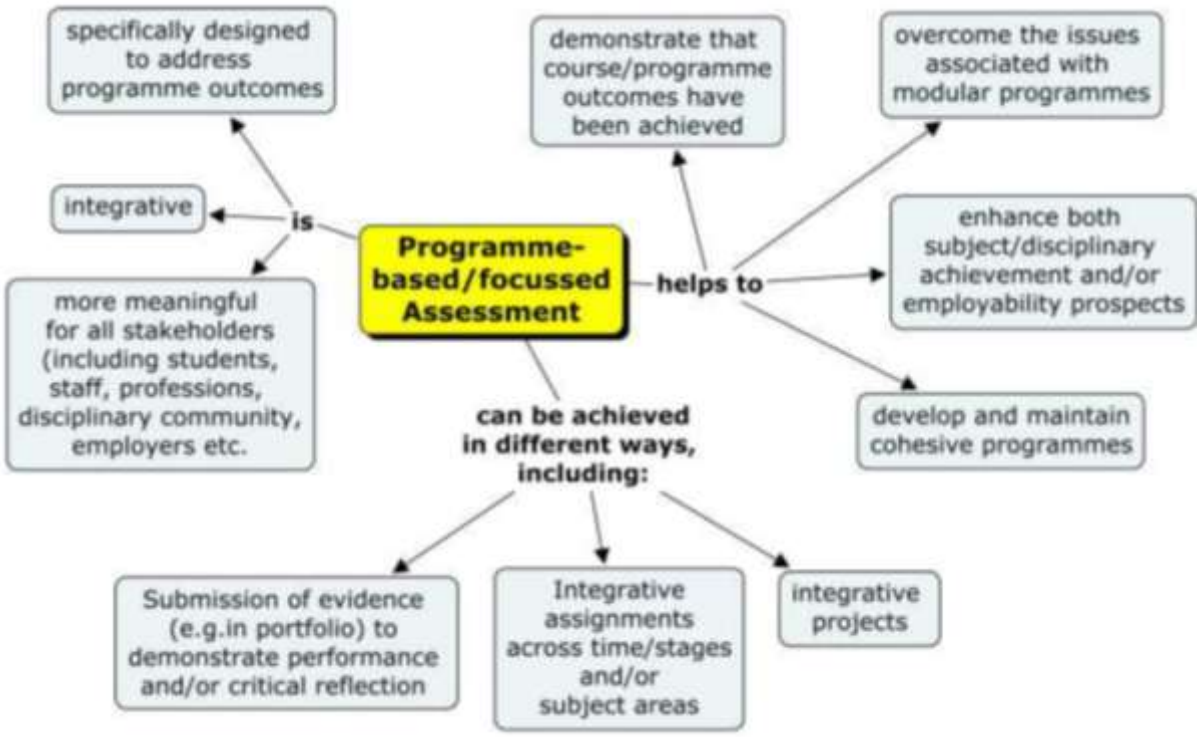

Figure 3: The nature of Programme-Focused Assessment (Higher Education Academy, 2011b).

The Big Dilemmas project currently already has the potential to enhance subject and employability prospects without assessment.

Student C: "*I think the project will help me in the future as something to talk about in interviews, and something to reflect on - both strengths and weaknesses - when approaching new projects in the future."*

Staff were found to strongly support this view. Two students stated that the Big Dilemmas project helped them to achieve success in getting placements in a highly sought after Met Office work placement scheme and one is hoping to gain a research internship at the University of Exeter. Others have been able to highlight their extra-curricular involvement within job interviews and MSc/PhD applications involving research into sustainability. The students all felt that the project had really added an extra dimension to their time at university.

Student C: "*I think one of the best parts of the project was the opportunity to learn something outside of my degree, and in a very different way to my experience at university"* and *"I think I've gained confidence and new insight to how projects work, particularly seeing how people from different disciplines work together. Or maybe how slow things can move because of this... But I think it's very useful to see. I think it's nice to see how well you can work when you are more interested in what you are learning."*

Student I: "*I've certainly gained a lot of experience in working across distances and with individuals with a similar outlook on the dilemmas and yet a wholly different skill-set and knowledge base from which they approach it. It goes unsaid that I gained a lot of knowledge through it."*

The main issue with having a set outcome (in the form of assessment) within the Big Dilemmas project therefore appears to revolve around the design of outcomes, which could have a restrictive influence on the creative or organic flow of the project. The answer therefore lies with integrative assessment where the students engage in the assessment design.

However, regarding the delivery of an interdisciplinary course with potential for PFA, there were clear messages from the students concerned in this project regarding the potential challenges. First, there is the question of how to resolve the tensions created by the need for development of self-directed learning as opposed to the demands of instructed learning. In this case study it appears that the facilitator needed to make students more highly aware of their role as active partners.

Second, student comments aligned closely with the suggested need for a clear framework within a sophisticated learning activity (Crisp, 2012) and if there were to be integrated assessment 'more scaffolding' would be required in the early stages of the assessment process.

Third is timing, another important factor commented on by all of the students who took part in the Big Dilemmas project. As Rust (2000) found, this problem of 'bunching' or 'log-jamming' clearly caused anxiety within the student body. For an interdisciplinary project such as this students will have widely varying subject commitments which will be further complicated by the different deadlines between undergraduate and postgraduate subjects. However, the facilitator felt that it was clearly explained to the students from the start that it would require excellent time keeping skills within the extra-curricular prestigious project. For undergraduate students it presents the possibility of the need for assessment to occur in the following academic year, and would therefore

link to a reflective process applied to a new project. To resolve this tension, the University has taken this knowledge to facilitate a new extra-curricular programme which will take place in the summer term after their examination period, i.e. Grand Challenges.

Figure 4 highlights the importance of institutional regulations and team-working for PFA.

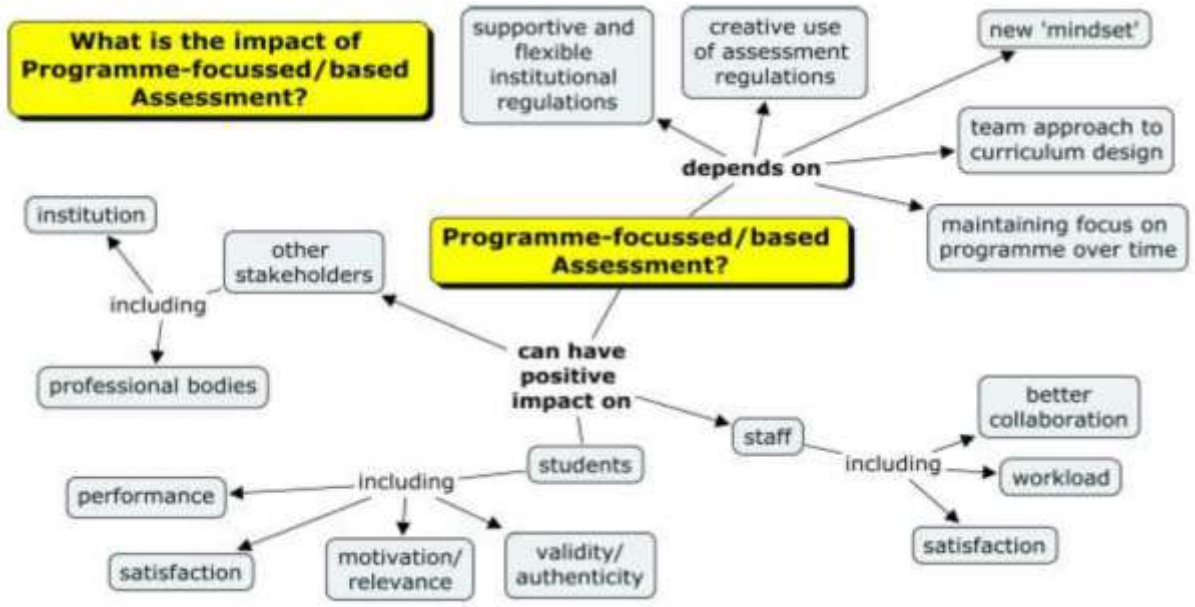

Figure 4: The impact of Programme-Focused Assessment (Higher Education Academy, 2011b).

Within this case study, the impact of potential PFA would cover all aspects of Figure 4, the students, stakeholders and staff. In the Big Dilemmas case study, the new 'mindset' and team approach to curriculum design has been highly successful in developing an innovative interdisciplinary project. However, for PFA to be successful it would require clear maintenance on the focus of the programme as well as supportive and flexible institutional regulations along with creative use of assessment regulations. The challenges of explaining the complexities of a new PFA approach across disciplines (Rodway-Dyer, 2010) would also need to be overcome.

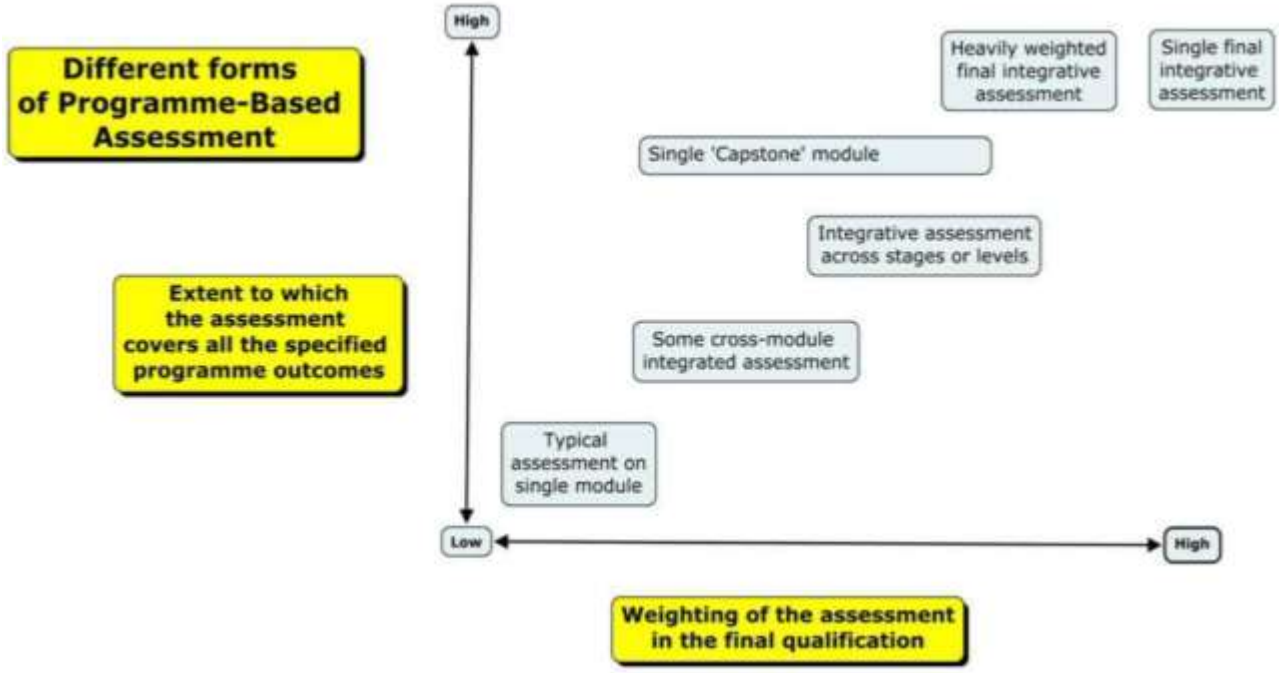

Figure 5: Different forms of Programme-Focused Assessment (Higher Education Academy, 2011b).

Depending on the choice of PFA for a module such as BD, it would possibly use integrative assessment across stages or levels. The research has enabled an informed discussion regarding potential ways to assess cross modular integrated assessment modules when they are integrated into the curriculum.

5 Guidance and implications for curriculum development in Higher Education

In conclusion, this reflective analysis has highlighted some very important factors, the first being that there is great value in having voluntary non-assessed participation in extra-curricular initiatives. This perhaps concurs with the view that current practice trends tend to overemphasize the importance of assessment for progression and certification processes as presented by Crisp (2012) but also highlights the value of non-assessment.

Second, there is scope and a demand to further develop interdisciplinary activities within Higher Education:

Student Q: "*The interdisciplinary nature of the project is probably its most valuable asset, but I feel like this could be pushed further.*"

Guidance and practical suggestions on how to introduce PFA into the curriculum remain speculative but the staff and students involved in the Big Dilemmas project have provided points for further exploration:

- The challenge of interdisciplinary extracurricular assessment methods - it is important to ask whether these might be a focus for pdp or the emerging transcripts for the HEAR - could this open up better opportunities for assessment of this kind of activity in the future?

- The challenge of working in a modular structure for both staff and students and whether this is a moment to review modules as they are currently conceived?
- The challenge of helping students manage a demanding extra-curricular project on top of assessed programmes that take priority over the non-assessed.

6 References

BOUD, D. 2007. Reframing assessment as if learning was important. *In:* BOUD, D. & FALCHIKOV, N. (eds.) *In rethinking assessment in higher education: Learning for the longer term.* London: Routledge.

CRISP, G. T. 2012. Integrative assessment: reframing assessment practice for current and future learning. *Assessment & Evaluation in Higher Education,* 37**,** 33-43.

HARTLEY, P., MEDDINGS, F., MCDOWELL, E., PRICE, M., BROWN, S., PICKFORD, R., BURKILL, S., WATERFIELD, J. & CHALKLEY, B. 2008. NTFS Projects 2008-09 Stage Two Project Bid. *Programme Assessment Strategies (PASS).* University of Bradford.

HIGHER EDUCATION ACADEMY 2011a. NTFS Group Project. PASS Position Paper: the case for Programme-Focused assessment.

HIGHER EDUCATION ACADEMY 2011b. NTFS Projects. End of Year Report (July) Template.

KNIGHT, P. 2007. *Fostering and assessing 'wicked' competences* [Online]. Available: http://www.open.ac.uk/cetl-workspace/cetlcontent/documents/460d1d1481d0f.pdf [Accessed 27/06/2012 2012].

MCDOWELL, L., MONTGOMERY, C., CONNISS, L. & WILSON, A. 2010. How do students see programme level assessment? *A case study from Northumbria University. PASS report.*

NICOL, D. J. & MACFARLANE-DICK, D. 2006. Formative assessment and self-regulated learning: a model and seven principles of good feedback practice. *Studies in Higher Education,* 31**,** 199-218.

QUALITY ASSURANCE AGENCY 2006. Code of practice for the assurance of academic quality and standards in higher education. Gloucester: Quality Assurance Agency.

RODWAY-DYER, S. J. 2010. PASS Report WP4. Peninsula Medical School.

RUST, C. 2000. A possible student-centred assessment solution to some of the current problems of modular degree programmes. *Active Learning in Higher Education,* 1**,** 126-131.

UNIVERSITY OF EXETER 2011. The future of renewable energy in the UK: Lessons from the Severn Barrage. *In:* DANIELS, L. (ed.). University of Exeter.

WIGGINS, G. & MCTIGHE, J. 2005. *Understanding by design,* Alexandria, Association for Supervision and Curriculum Development.

Appendix 1

Interview questions for academics:

- **Contextual questions:**
  1. When were you first involved in the BD Project?
  2. How did you come to be involved?
  3. What made you want to be involved?
  4. What has been your role?

- **Reflective evaluation:**
  1. What did you see as the aims/objectives of the project?
  2. Was assessment discussed?
  3. Did the project lead to assessment for the students?

4a. If YES:	4b. If NO:
i. How was it assessed? ii. Who assessed it? iii. Who was involved and looked after the assessment with the students? iv. Is it possible to have an example of the assessment? v. Was it formative or summative assessment?	i. Why was it not assessed? ii. Had you expected assessment to be involved? iii. Would assessment have altered the project? a. If YES, how? iv. How do you think assessment could have been involved? v. Do you think it was a good idea to design a project which, although it intrinsically motivated the students, did not allow the students to gain any credit?

5. Anything else you would like to add?

Appendix 2

Interview questions for students:

- **Contextual questions:**
  1. When were you first involved in the BD Project?
  2. How did you come to be involved?
  3. What made you want to be involved?
  4. What has been your role?

- **Reflective evaluation:**
  1. What did you see as the aims/objectives of the project?
  2. Was assessment discussed?
  3. Did the project lead to assessment for the students?

4a. If YES:	4b. If NO:
i. How was it assessed? ii. Who assessed it? iii. Who was involved and looked after the assessment with the students? iv. Is it possible to have an example of the assessment? v. Was it formative/ summative/informal/formal assessment?	i. Had you expected assessment to be involved? ii. Would you like assessment to have been included? iii. Would assessment have altered the project? a. If YES, how? iv. How do you think assessment could have been involved? v. Do you think it was a good idea to design a project which, although it intrinsically motivated the students, did not allow the students to gain any credit?

5. What have you gained from being involved in BD? (e.g. graduate skills, research skills etc.)

Appendix 3

Reflective questions at the end of the project

Dear All
Firstly I would like to say a very big 'Thank you' to those of you who have kindly participated in this research aspect of the Big Dilemmas Project. Your regular emails have provided a valuable input.

Secondly, please can I get all of you to just write a final reflection on your thoughts about the project.

You are now in the final stage of the project and have possibly all been through different feelings of highs, lows and perhaps worries etc. It would be really helpful if you could just spend 5-10 minutes writing up your reflective thoughts on the project and your learning experience. You might like to reply to me with comments under the following topics:

What have been your highs and lows within the project?
How have you dealt with uncertainties and anxieties?
What you have gained from the experience?
Has being involved in the project taught you anything about your own learning process and if so, what?
How has the interdisciplinary aspect of the project helped you as a student?
How do you think being involved in the project will help you in the future?
Please can you reconsider the aspect of assessment and suggest any ways in which you think BD could be assessed in the future which might be within your subject area or a more general reflection on learning outcomes? How could this be marked?
If possible please include your ideas on how the BD project could be improved.
Finally, anything else that you can think of to say?

As always your replies will be treated with the strictest of confidence and names will not be used in any of the research.

Thanking you in advance and wishing you all the best for the future
Sue

UNIVERSITY OF EXETER

PASS Conference Assessment Strategies: The way forward 24/25 July 2012

Methodology:

- Continuous examination of course documentation (including emails and the Electronic Learning Environment (ELE) Discussion Forum)
- Mid-project one-to-one (face-to-face) interviews with:
  - Academic Staff (10)
  - Education Enhancement Staff (3)
  - Students (10)
- Continuous analysis of reflective student diaries (13)
- End of project reflective:
  - Questionnaires with students (9)
  - Interviews with students (2)

To Consider:

- Involvement in the project
- Potential outcomes
- The role of assessment
- Potential assessment ideas

Potential Assessment Options:

- Reflective diary or blog – this would look at the student experience and learning process throughout the time of the project and include skills mapping and outcomes such as presentations. It would help students to develop their own awareness of their learning process and enable them to make formative judgements about their future learning (Boud, 2007). Within this project it would provide 'integrative assessment' as described by Crisp (2012) whereby it provides an activity for students to assess their own learning capabilities and problem-solving capabilities and how this could be adapted in future learning scenarios. Thus giving students their own autonomy and sense of ownership.
- Certificate to say participated – there is potential to create a key skills (or 'soft skills') certificate for potential employers. In the case of Big Dilemmas it would include all nine 'wicked' competencies or attributes identified by Knight (2007). Clearly, within Big Dilemmas this also fulfils the assessment task feature of engaging students as participants in assessment design (Knight, 2007) and would incorporate such assessment rubrics as the six facets proposed by (Wiggins & McTighe, 2005).
- Option to write dissertation/thesis or provide a case study for curriculum – it would not be feasible for 20 students however, to all write their dissertation or thesis on the project.
- Link to Exeter Leaders Award – students are still doing something voluntarily but you can then get additional credit.
- Publications/publicity/final product – a mixture of written and oral (presentation) pieces of work based on the Think Tank issue. Stakeholders are involved in this. This actually forms the current finished product from the project but it is not assessed.
- Peer assessment – but this could end up assessing time and effort rather than ability. However it would provide formative assessment by involving the students by making them make evaluative judgements about their own work and the work of other students. Again, this would provide a form of integrative assessment (Crisp, 2012).

Big Dilemmas PASS Project

The aims of the case study are to:

- Reflectively evaluate the objectives of the Big Dilemmas project by staff and students.
- Develop scenarios for assessing an innovative interdisciplinary project based on the Big Dilemmas project which is now running for the second year at the University of Exeter.
- To find ways of assessing the 'cross modular' project and taking it beyond the extra-curricular.
- To focus on how the interdisciplinary approaches of the Big Dilemmas project can be integrated into the teaching and programme assessment of a new Grand Challenges 2013 programme.

	ADVANTAGES	DISADVANTAGES
STAFF VIEWS	Focus students' minds. *"Students would get credit for their time, not just credibility"* which would be fairer given their efforts in participation. Staff could include commitments as part of their teaching allocation.	Operational difficulties such as how to assess across disciplines and levels and how it would actually work with university rules and regulations. Additional work for staff. Who will mark work considering staff participation is not currently acknowledged regard to work load and therefor it could *"potentially put-off academics from being involved"*. Would not just have highly motivated students any more. Reduce the *"fun"* aspect of the project. Turn into another module with fixed assessment criteria to be met (*"goal directed"*), stopping the natural evolution of the project due the necessity for clear learning outcomes. It would cause *"rigidity and structure"* and become *"confined by a strait jacket"*. Could end up being *"watered down"*. Belief that students would not be interested as it would just be *"main stream"*.
STUDENT VIEWS	Provide a focus and make it more structured. Cause people to be more innovative, motivated, more willing and possibly force discussion. Create student ownership. More perceived value.	Would stop being elitist/exclusive. People would just do it for credits which would be a different incentive to personal gain. Currently something very different. It would add an extra layer of stress. *"Not everything needs to be assessed in life"*. It would stop the evolving organic process of intellectual research (process) and just become focused on a target (output) rather than emergent thinking. It allows people to be passionate and self-motivated. It could possibly stop being interdisciplinary.

bigdilemmas

The case study concentrates on approaches to PFA within the Big Dilemmas Project at the University of Exeter. The Big Dilemmas Project was launched in 2010 with the aim of creating an interdisciplinary think tank bringing together students, academics and stakeholders to investigate society's sustainability issues.

The 2011-12 focus is on The Future of Land Use in the SW: Food, water and energy security in the face of environmental change. The Big Dilemmas project has characteristics which differentiate it from other college subjects because of the interdisciplinary approach. At the time of conception it was thought that the project would naturally facilitate a PFA approach to assessment.

The Big Dilemmas project features in the Environmental Sustainability Strategy 2010-2015 as an example of how extra-curricular education for sustainability projects could provide inspiration for curriculum innovation. The concept has now been taken forward in the Grand Challenges 2013 programme under the name 21st Century Dilemmas.

http://www.exeter.ac.uk/media/universityofexeter/campusservices/sustainability/pdf/Sustainability_Strategy_2010-2015.pdf