

Understanding MSc student experience and graduate pathways: an Alumni survey for MSc Environmental Consultancy at UWE

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Key words and concepts:

Opportunity for mature reflection *A richer understanding of the student experience*
Significant value added *Career pathways* *Highly employable graduates*

Abstract

The first alumni of the MSc Environment Consultancy course at the University of the West of England (UWE) are now ten years into their careers. This was an opportune time to gather their mature assessment of the course. We undertook an online survey of alumni, followed up with semi-structured interviews to explore key themes. The main finding is very positive, namely that the course is working well in achieving the designed intention of being a bridge to an environmental consultancy career. The MSc was perceived by alumni, to be of value in obtaining a first post and in undertaking key aspects of those posts and subsequent posts in their career paths. The module which has shown most relevance to work is the Environmental Assessment module. Despite achieving excellent job outcomes, it was concerning to discover that 18% of the respondents would not recommend the course as a route to the current role. Follow up interviews indicated that this was in quite a few cases due to concern about the management of the course and the placement process. The course team has been evolved and has focused on improving these areas over the past 18 months (to Nov. 2016) and they have been addressed through specific course enhancement measures. From the year 16/17 new assignment of responsibilities for the placement and programme management were made. Enhancements of networking with employers and potential placement providers as well as alumni, continue to be developed.

Introduction

At a time when across the UK HE sector, institutions are finding it very hard to recruit UK home Masters students, we have managed to maintain and even extend recruitment to MSc Environmental Consultancy. The MSc Environmental Consultancy at UWE, Bristol has been constructed as a bridge to work in environmental consultancy and environmental management.

We were interested explore what drew students to the course, what they gained from it and how it has helped them in their subsequent careers. Existing data sources such as NSS (UG) and module feedback are unable to examine these questions in depth and will miss out important issues related to students' developing career pathways and the role that their study at UWE played in those careers.

Within Higher Education in the UK in recent years, several themes have been emphasized including understanding the student experience of HE, student feedback and employability. There are significant limitations to the approaches currently taken to obtaining evidence on these issues across the sector. MSc Environmental Consultancy at UWE Bristol is designed specifically to enhance the employment prospects of graduates wanting to work in a range of environmental management and

consultancy roles. Thus, we propose that the most important measure of its success is how effective it is at enabling graduates to enter their chosen employment field and to progress through it. An invitation to participate in a questionnaire survey was sent to all alumni of the course through their last known contact details, representing 10 years of student cohorts. This was followed up by detailed semi-structured interviews which were used to access mature reflection on graduates' experience of their MSc and their subsequent career pathways.

The students recruited to the degree come from a variety of backgrounds as diverse as including Physics, Philosophy, Biology and Archeology, not just Geography and Environmental Science. The cohort has varied in composition over the last decade with varying mix of UK and international students and mature students and those who have just completed a first degree.

The specific project aims were:

1. To understand MSc Environmental Consultancy students' experience at UWE through their considered reflection on their study after graduation.
2. To understand MSc Environmental Consultancy graduate career pathways and how they have built on their learning at UWE.
3. To understand how alumni network as their careers progress.

Method

We sought to evaluate how the MSc has helped Alumni in gaining and doing their first, second or subsequent jobs since graduation from UWE. The key themes in data collection were:

- 1 What were their expectations of the MSc and its contribution to their career development?
- 2 What in their view has been the effect of the MSc on their employability?

E.g. the effect of:

Having the MSc as a qualification.

What they did in their research project.

What they did in their (48 day) placement.

- 3 What professional networking do they do and how? What role does/ might networking with other Alumni have? What is the place of Linked in that?

An invitation to an online questionnaire survey was circulated to alumni of the MSc Environmental Consultancy. In addition to contacting alumni with known contact details, alumni were asked to connect us to other alumni they may still have contact with to widen the sample. There have been 10 years of the MSc course. Responses were obtained from 8 of those years.

The questionnaire survey was initiated in August 2015 and additional Linked In, Facebook notices increased recruitment over the following academic year.

Follow up semi-structured interviews explored issues raised in the survey in greater depth. The interviewer Ian Brooks had not taught most of the interviewees and this was considered helpful in gaining candid responses.

The research questions that we sought to address were:

- 1 What drew students to the MSc Environmental Consultancy?
- 2 With benefit of greater hindsight, did the course meet their expectations, would they recommend it to others?
- 3 What skills/ knowledge did the course provide that helped them in their professional work?
- 4 What other skills/ knowledge would it have been helpful to have had in the course?
- 5 What training or qualifications have they undertaken since leaving UWE? E.g. IEMA membership? CIWEM membership?
- 6 What field do they work in now and do they intend to stay in it for the next 5 years or so?
- 7 What posts have they held since leaving UWE?
- 8 Was their MSc helpful in obtaining any of those posts?
- 9 How do they keep up to date in their professional work?
- 10 Where did they do a placement and what did they do?
- 11 Did the placement help in finding work or in any post they have held?
- 12 What was their research project?
- 13 Did the research project help in finding work or in any post they have held?
- 14 Would they or their employer be interested in taking students on placement?
- 15 How do they keep in contact with other Alumni?
- 16 How might an MSc Environmental Consultancy LinkedIn page be helpful to them/ what would they like it to be able to facilitate for them? E.g. discussion groups? Contacts in job hunting?
- 17 Would they recommend MSc Environmental Consultancy as a route into their current post?

Results and discussion

The sample was 22 respondents from a total of 131 alumni from the course, representing a 17% response rate from the total population of alumni

Age at graduation of respondents

The age at graduation shows a wide range of recent graduates and mature students.

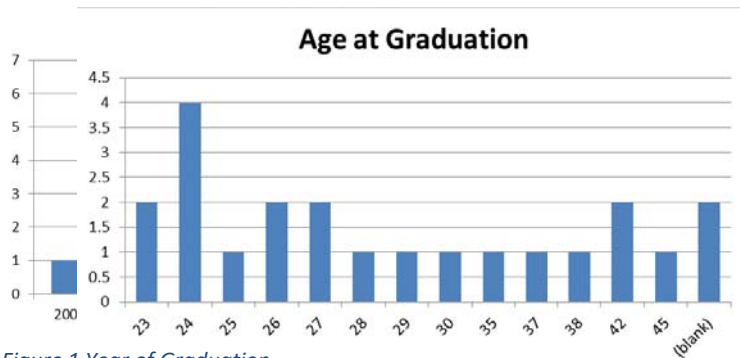


Figure 1 Year of Graduation

Figure 2 Age at Graduation

Current roles

Of the 15 alumni who responded to the question, 100% reported being currently in full time employment with job titles as shown in Table 1. Their current employers are almost all in the environmental consultancy or renewables sectors: Atkins, Department for Communities and Local Government, Eunomia Research & Consulting, Fraone Ltd., Green Hedge Renewables, Hodgkinson Consultancy, Laing O'Rourke Australia Pty, Peter Brett Associates, RSK, Tweedie Evans Consulting Ltd, Waterman, WSP Parsons Brinckerhoff Australia Pacific.

Business Development and Planning Manager
Environmental Advisor
Environmental Consultant
Environmental Specialist
Principal Consultant
Principal Geo-Environmental Consultant
Project Planner
Sales and marketing/Stakeholder Liaison
Senior Consultant
Senior environmental consultant
Senior Environmental Scientist, Contaminated Land Management Team
Senior Waste and Resources Consultant
South West Local Growth Development Team Leader

Reason for choosing the course

The reported reasons for selecting the course were varied but most frequently mentioned were the need for a further qualification and an entry point into a new career path. The placement was seen as a part of that route. The reasons are shown in Table 2. Just over 50% indicated that they learnt about the course online.

Table 2 Reasons for choosing the course

Reasons for choosing the course	Number of people mentioning
Further qualification	4
Looking for career path	4
Sector entry point	4
Work Placement	4
Good range of modules	2
Attractive to employers	1
Bristol area	1
Career change	1
Competitive job market	1
Good practical content	1
Interest in Environmental issues	1
Few exams	1
Possible alongside part time work	1
Postgraduate show	1
Specialized course	1

Student's prior educational background

About 30% of students had a first degree in Geography and just under 20% had an environment-related first degree. Others were quite varied, ranging from mechanical engineering through to psychology. The previous university was even more varied with the largest group being around 20% from Plymouth University. (In the last three years this has changed with UWE now being the largest group of graduates feeding the MSc following better internal promotion and scholarships promoting the course). There was a clear bias towards universities in the South West of England, representing about 40% of respondents.

What did students appreciate about the course?

In response to the survey question about which modules had proved particularly helpful, alumni frequently identified the Environmental Assessment module as most useful to them. The Environmental Business Skills module was also well reported. The results can be seen in Table 3.

Table 3 Most helpful modules / teaching

Most helpful modules / teaching	No. of respondents
Environmental Assessment	9
Environmental Business Skills	5
Professional Practice in Environmental Sciences e.g. The Placement	3
Dissertation	3
Environmental Management Systems	3
Sustainable Technologies	2
Practical field and lab work	2
Waste management and Contaminated Land	2
Visiting consultants	1

These results should be balanced by the parallel finding from interviews that undertaking the placement was especially valuable in gaining employment. Some dissatisfaction with the level of support offered to obtain a placement seems to be a different issue from the high value placed on actually doing a placement and being able to evidence this enhanced experience to future potential employers. (The issue of support for finding placement is addressed under Course enhancement later). A range of suggestions were made by alumni for other areas where the course could be enhanced, but the two main themes were interestingly either, "More networking with professionals", or "Nothing more".

This suggests on the one hand a considerable degree of satisfaction with the content of the course and on the other an understandable desire to maximize the opportunities to use the course to find relevant employment.

(From the year 2015/16 we have significantly increased the number of guest speakers, including recent graduates returning to speak and network).

Table 4 Areas where the course could be developed

Areas where the course could be developed	Number of Respondents
More networking with professionals	3
Nothing more	2
Help with placement choices	2
More EIA case studies	1
Public consultation skills	1
Land Use Planning in depth	1
More on buildings inc BREEAM	1
Standards and compliance	1
Smaller number of topics in more specific detail	1
Hydrogeology for contaminated land	1
Environmental monitoring	1
Air and noise modelling	1
HSE	1
Environmental regulation	1
Sustainability	1

Would you recommend the course?

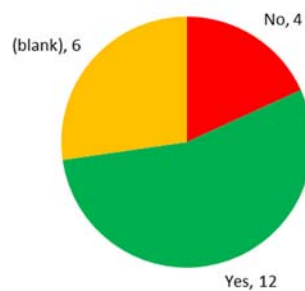


Figure 3 Would you recommend the course as a route to your current role?

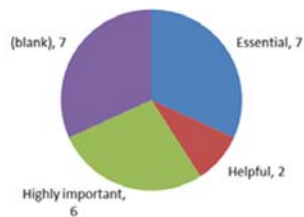
This shows a somewhat challenging response that isn't clear from other data sets available on the course, when one considers the noticeable number who would not recommend the course to others as a route to their current role. It is of course the case that some alumni will head in a different career direction than they had expected at the time of enrolling on the MSc, for which it ultimately is less relevant. However, follow up interviews probed why it was that some would not recommend the course and typical responses included concerns about the organization and running of the course in some years, but with confirmation that they would recommend it if some aspects of the course delivery improved. Another commented that they had got what they needed from the course but wouldn't recommend it considering the cost.

The issues raised here have been addressed over the last 18 months to Nov. 2016.

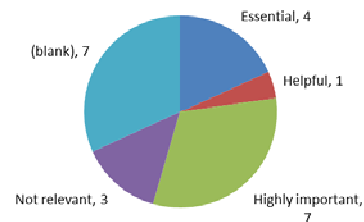
(See discussion under Course Enhancement below).

In obtaining a first job after graduation, how significant was:

How significant was the Masters to getting your first job?



How significant was your placement to getting your first job?



How significant was your research project to getting your first job?

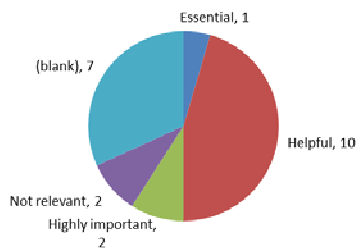


Figure 4 Significance for getting first job

It is clear from the survey and interviews that the MSc course and especially the placement were key to enhancing employability in the student's chosen career field. We have used a new approach in the academic year 2015/16 to helping students find placements by contacting over 1500 organizations networked to UWE to make them aware of the possibility of having a placement student. This led directly to 12 out of 16 placements that students took up the year 16/17.

Student's dissertations were often linked to their placement, exploring issues in more depth. It is therefore not surprising that practice focused research projects were also instrumental in obtaining relevant employment.

How students keep in touch with one another and UWE

Table 5 Social Media use for work

Social Media for Work	Number of respondents
LinkedIn	12
Facebook	4
Twitter	3
Wordpress	2
Google+	1
Instagram	1
YouTube	1

LinkedIn was clearly the most popular social media tool for staying in touch on a professional basis, as shown in Table 5. Just over half of those who responded indicated that they would value a LinkedIn group for the course and alumni. Work is ongoing to maximize DGEM's connection with Alumni through LinkedIn (Duncan Bayliss and Ian Brooks)

Interviews

Follow up interviews were undertaken with alumni who indicated in their questionnaire responses that they would be willing to discuss their experience further. The interviews were conducted by Ian Brooks whom most of the alumni would not have encountered in their experience at UWE, to maximize the likelihood that alumni would feel able to give candid responses. The interviews sought to probe deeper on some issues in the questionnaire survey. Specific findings there were followed up in more detail, such as why particular modules such as EIA and Business Skills were the most mentioned as being helpful to students. The results are synthesized question by question.

What did you hope to gain from the course?

Alumni talked about the course as a way into the Environmental Consultancy sector whether as a new graduate or for a career change. The placement process was seen as highly valuable in getting over the 'catch-22' of a lack of relevant experience in the sector and enhancing their CV. The course was an opportunity for career changers to develop an expertise and credibility in the sector.

What alternative routes had been considered?

Over 60% of alumni interviewed were Bristol-based and only considered studying at UWE or the University of Bristol. They did not identify a relevant course at UoB. One interviewee had looked at other universities e.g. Sheffield.

Why did students consistently rank the EIA module so highly?

Alumni valued the overview that EIA gave them of the Environmental sector. They were positive about the mixture of teaching and teamwork in the module. It gave them a chance to practice the report writing style. Several of them said they did not appreciate the EIA module so much at the time

but have since come to realize its value. Some were grabbed by the topic at the time and reportedly enjoyed the combination of theory and practice.

The placement process.

Alumni frequently reported a lack of support in the process of finding their placement. “It felt like shooting in the dark”. They recalled being given a list of companies but little else. It must be borne in mind that the respondents come from over a decade of the running of the course and that placement support has been evolving. Whilst a few commented that requiring a high degree of pro- active searching was the reality of the jobs market, most felt that UWE could have made better use of networking with businesses. One highlighted how much emphasis there was on the dissertation from the start of the course and observed that placements should get at least as much emphasis, as being equally important to their future. Those who saw themselves as proactive overcame this. Others particularly straight from an undergraduate course, now successful in their careers, felt that there should even be teaching on networking. (The approach to supporting the search for a placement has been improved with more interaction between the course team and students over who they apply to and how they do it).

Getting their first job

Of the alumni *interviewed*, most secured their first environmental consultancy job after the course through normal routes of seeing a job advertised and applying. Their success rates were good. One had been employed directly by their placement company and another had successfully used recruitment agencies. This contrasts with our own direct evidence of the last 3 years or so of graduates from the course, where typically 3 or 4 have obtained employment directly following on with their placement provider.

During the course, students developed a clearer idea of the companies they wanted to work with and they had the experience to be convincing in application and interview. The experience of Alumni has no doubt also varied over time; Environmental consultancy and allied areas of work are closely tied to the development industry and its cyclical jobs market, with alternating downturns and growth, affecting ease of entry to the jobs market.

What did their employers value about the course?

The alumni reported that employers liked the combination of theory and practice in the course. The alumni were sufficiently ‘on top of’ the technical issues and had grounded that in work with businesses or community groups, so as to be seen as very employable. A couple of the employers of respondents were on the Advisory Panel for the course and had been involved in shaping the course so that it met their needs for ready and able staff. The Advisory Panel is regularly updated and includes senior figures in environmental consultancy as well as recent Alumni from the course.

What professional body has been most useful?

IEMA was the body most frequently mentioned though the level of engagement varied amongst the alumni. IES, CIWEM and IAQM were more relevant for people in specific sectors such as Ecology (IES), waste management (CIWEM) and air quality management (IAQM).

What training have alumni taken after the course?

Most alumni referred to 'on the job' training. There were specific areas where they needed to acquire additional skills such as agricultural land assessment and noise monitoring, or learn additional tools such as Visual BASIC or AutoCAD (a City & Guilds course). Some also received soft skills training around creative writing and Human Resources management.

Course Enhancement

Specific issues raised in this research have been addressed over the last 18 months.

Issue: More support for finding high quality placements.

Action: Duncan Bayliss took on the Propies Placement module. All organisations in the Environmental iNet and Bristol Green Capital network were contacted about potentially taking a placement student. Over 1500 organisations in the SW region were contacted. 12 firm offers of placements resulted by Easter 2015. Further work on making the placement better known through networks connected to colleagues, by Ian Brooks, Jo Barnes, Duncan Bayliss and others has yielded other potential placements for the academic year 2016/17 with 4 clear offers of potential placements available by Nov. 2016 in addition to any available through businesses of members of the Advisory Panel.

Duncan Bayliss edited a volume of **Placement Summaries** written by the students themselves, summarizing their placement experience. This has helped give students and prospective placement providers a clearer idea of what the placement involves.

It would help to be able to make this publication more easily accessible externally to prospective students and potential placement providers.

Issue: Building in more professional speakers.

Action: Action on this point has been evolving over a number of years. Some students commenting on the need for more of this type of input were from quite a few years back in the life of the MSc. In the last 3 or 4 years a push has been made to get previous students to return and speak on their consultancy work as well as building on existing networks and new connections through new placement providers (e.g. Ecotricity 2015) to bring in relevant practitioner speakers.

Issue: Enhancing networking

Action: Ian Brooks has been working on LinkedIn connections to alumni, building on the survey work and other networking. Prof. Martin Bigg facilitated the use of the Environmental iNet and Bristol Green Capital network to circulate information on placements to over 1500 green businesses and organizations in the South West of England. This a pool of potential employers of the graduates of the course and has raised its profile such that organisations have made unsolicited enquiries about hosting a placement student for 2016/17. This yielded 10 placement offers in 2015/16.

Further work is needed on enhancing our web presence to make it easy for potential placement providers to engage with UWE over the MSc Environmental Consultancy.

Conclusions

Employability

The MSc is acting as an effective bridge to work for those straight from a first degree and for career changers.

Students go to a wider variety of first and subsequent roles in the private and public sector than was previously recognized within UWE or reflected in the marketing for the MSc. The course is successful in enhancing student's employability to a wider range of roles than is implied by the course title Environmental Consultancy, evidenced by how important the MSc was in obtaining a range of specialist environmental roles.

Whilst some each year did obtain work in the consultancy sector with major consultancy groups (WSP, RSK, Atkins etc, approximately 60% of those who responded in the survey) others gained posts with a range of public and private sector employers in roles as diverse as; ecological survey, energy management, environmental auditing, water quality modelling, waste management and small business advice.

The range of roles students obtain and variety of organizations they go on to work in, is wider than anticipated by students when they enrolled for the course.

The added value in the course

The module cited in the questionnaire as most useful, by a large margin, was Environmental Assessment (EIA). This seemed to be partly due to the overview it provided of a wide range of consultancy areas of work and the framework it developed for thinking about environmental management and consultancy.

Follow up interviews explored why EIA in particular was deemed so helpful. It was identified as providing methodologies and context that integrated much of the rest of the MSc and provided students with an heuristic on which to hang their wider learning. It was identified as a key skill set in the employment fields of Alumni and taught in such a way that immediate engagement with EIA in practice was possible in the work place, adding to graduate's credibility and employability.

The placement which takes place over 10 weeks in the second semester of the course, was cited as the single most helpful part of the course in gaining relevant employment. **This key message could be better communicated to prospective students.**

The value of alumni surveys

Surveying students when they have had the **opportunity for mature reflection** reveals interesting patterns and **a richer understanding of the student experience** as well as subsequent **career pathways**, that are not available from other data sources such as the National Student Survey (of UGs) or individual module feedback. In the case of MSc Environmental Consultancy at UWE, this includes very positive outcomes in terms of employability and the high value that a large proportion of the alumni place on their study at UWE. It reveals **significant value added** for students seeking to enter the environmental consultancy and wider environmental management job market. However, it also reveals challenging responses when one considers the noticeable number who would not recommend the course to others for a route to their current role. For some this was due to how their career path had developed since graduation, however, in follow up interviews typical responses were around management of the course, which has been addressed, and cost of study, which remains a sector-wide issue.

Overall the MSc is a highly successful course that has operated well in a challenging HE environment and through significant variations in the development industry and economic cycle. It has remained relevant and delivered **highly employable graduates** who have been able to obtain posts in the environmental consultancy and environmental management areas. Several alumni mentioned that their view of the course had developed over time as their careers progressed. One admitted that whilst she had been critical of some aspects of the course in the survey, it had still had a significant impact on her career, saying, ***"Not a day goes by without thinking I'm doing things differently because of the [Environmental Consultancy] masters course"***.