The University of Edinburgh Principle's Teaching Award Scheme

Project Title: Skills Development and Employability in the Business School Undergraduate Curriculum.

Project type A: Research Project (research focus on particular dimension of teaching, learning, assessment)

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Introduction

This project set out to map and analyse skills provision within the Undergraduate Teaching Programmes at University of Edinburgh, Business School (UEBS).

One of the main commitments of UEBS is to enhance student experience, graduate skills development and employability outcomes. Opinion reflected through feedback mechanisms such as the National Student Survey (http://www.thestudentsurvey.com) and the Edinburgh Teaching Survey (http://www.ed.ac.uk/students/academic-life/quality-assurance/student-surveys/edinburgh-student-experience) highlighted a clear wish on the part of students to be able to understand and articulate better their personal and professional development. This matrix was developed in response to this as well as to help ensure relevancy, and progressive development, around skills provision within our UG UEBS programmes.

Methodology

At UG level, UEBS owns twenty-one different degree programmes in Business as well as joint and "with" programmes with a range of schools within CAHSS and CSE including: LLC, Law, Economics, PPLS., Maths and Statistics, Informatics and Biological Sciences. This study set out to audit the skills development offered within all UEBS UG courses (at honours level and non-honours level), as well as to give an indication of the skills development offered though compulsory UEBS courses across UEBS owned UG programmes[1]. From January 2017–August 2017, the course handbooks of 74 UG courses were analysed in order to assess UEBS skills provision[2]. These courses represented all UEBS courses across all year groups at UG level. As a basis for this analysis, a 'skills matrix' was developed which mapped the skills developed on courses against key quality assurance subject benchmarks and key Graduate Attributes[3] (see Appendix 1 for UEBS Graduate Attributes, 16-17).

In drawing together material from the course handbooks and analysing skills development, the key focus was on identifying how skills development was articulated within, and across, the sections of

[1] Within UEBS there is significant flexibility built into student progression through degree programmes and therefore paths through course choices can be hugely varied. Understanding which skills are covered at core level within a degree programme therefore provided a valuable means to understand which skills were attained at a compulsory course level.

[2] Course handbooks were all from year 16-17. Four were from year 17-18. At the time of data collection courses were in the process of being replaced, and so the later version was used.

[3] http://www.qaa.ac.uk/en/publications/documents/SBS-business-management-15.pdf
http://www.ed.ac.uk/employability/graduate-attributes/what

the course handbook specifically relating to skills and attainment[4]. It is important to note that course handbooks varied in their use of language when describing and articulating skills development. In particular, the language around skills often deviated from descriptors outlined in the graduate attributes list. Where it could reasonably be done, those skills outlined in the course handbook - which were described differently - were interpreted by the author and then mapped using the language of skills as outlined in the graduate attributes list.

In addition, skills were regularly 'compressed' in their reporting within handbooks. For example, often in relation to subject specific skills 'generic' skills were mentioned but without being individually highlighted in their own right. Handbooks would, for example, provide statements about the outcomes of their courses such as learning to 'critically analyse [subject specific entity]'. Here the subject specific skill was highlighted but the generic skills – in this case critical and analytical skills - were not specifically highlighted as skills developed on the course. Where instances of this occurred, it was noted in the skills matrix, and these skills were mapped in the matrix as skills developed by this course.

Key Findings

Business School skills provision

The graduate attributes list is divided into four sections: communication, personal and intellectual autonomy, personal effectiveness and research and enquiry. These are outlined in the table below and in full in appendix 1. Skills were considered across all courses at UG within each of these categories, as well as being considered at courses at the levels of Honours and non-Honours. An overview of skills representation at these levels is represented in Table 1 below.

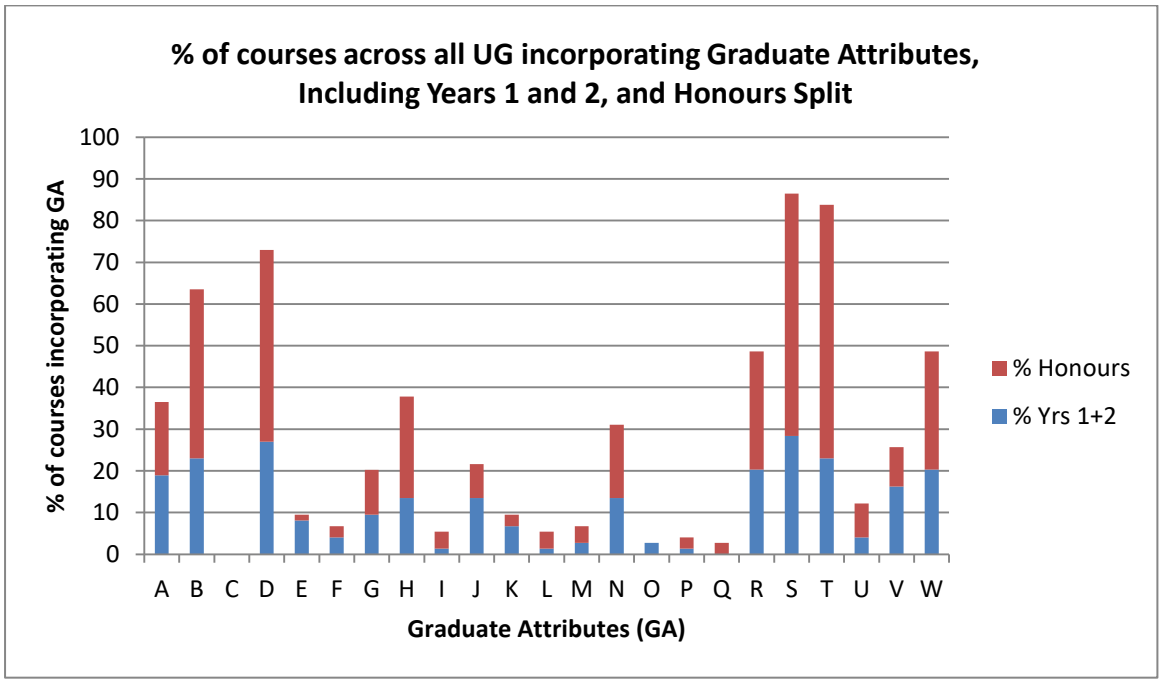
[4] These were typically, but not exclusively, labelled as 'learning outcomes', 'graduate attributes' 'generic skills' and 'course aims and objectives'.

Table1

		Numerical Instances of Skills Across courses.	**Numerical Instances of Skills Across Year 1 and 2 courses.**	**Numerical Instances of Skills Across Honours Years Courses**	**% of representation across all UG courses**
Graduate Attribute	**Skill**	TOTAL COURSES 74	TOTAL COURSES 24	TOTAL COURSES 50	
Communication	Inter-personal Communication	27	14	13	36
	Verbal Communication and Presentation	47	17	30	64
	Cross-cultural Communication	0	0	0	0
	Written Communications	54	20	34	73
	Influencing	7	6	1	9
Personal and Intellectual Autonomy	Ethics and Social Responsibility	5	3	2	7
	Self-awareness and Reflection	15	7	8	20
	Independent Learning and Development	28	10	18	38
	Creativity	4	1	3	5
	Decision-making	16	10	6	22
Personal Effectiveness	Leadership	7	5	2	10
	Planning and Organising	4	1	3	5
	Commercial Awareness	5	2	3	7
	Effective team-working	23	10	13	31
	Assertiveness	2	2	0	3
	Entrepreneurial	3	1	2	4
	Flexibility	2	O	2	3
Research and Enquiry	Problem-solving	36	15	21	49
	Analytical thinking	64	21	43	86
	Critical thinking	62	17	45	84
	Knowledge Integration and Application	9	3	6	12
	Numeracy and big data	19	12	7	26
	Independent research	36	15	21	49

Information from Table 1 has been presented in Chart 1 below. This chart indicates all graduate attributes and the percentage of all courses at UG level incorporating these skills. An indication is also given here as to the non-Honours / Honours split with regards to skills representation at these levels.

Chart 1



Notable from Table 1 and Chart 1 is lack of evidence for the development of the following graduate attribute skills: cross-cultural communication, influencing, ethics and social responsibility[5], creativity, leadership, commercial awareness, planning and organising, assertiveness, entrepreneurial behaviour and flexibility, with 10% or less of courses explicitly highlighting their development. On the other hand, a number of graduate attribute skills seem to be more prominently developed across our UG course provision. Verbal communication and presentation, written communication, analytical thinking and critical thinking for example were all represented in more than 60% of the courses analysed.

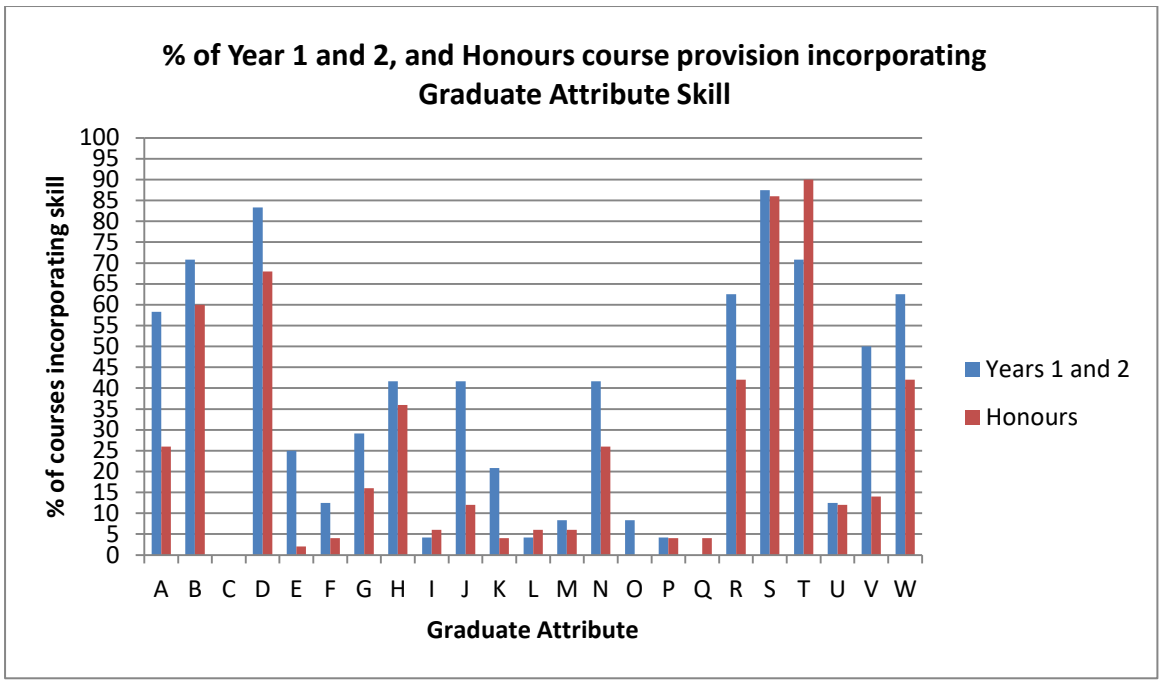
Overall, this highlights disparity between overall skills representation across courses broadly, by stage of study (non-Honours / Honours) and usefully highlights where graduate attribute skills development is under-represented on our UG programme.

Additionally, non-Honours and Honours courses account for 24 and 50 of the total 74 courses looked at here respectively. The representation of graduate attributes was therefore considered

[5] Ethics and social responsibility has been given particular attention in a corresponding study undertaken by UEBS during Summer 2017. It is a priority area for UEBS and an ERS (Ethics, Responsibility and Sustainability Group) was set up in 17/18. This group has been tasked with developing and expanding ERS teaching and skill development across our UG, PG and PhD programmes.

proportionately to total course provision at these levels. In Chart 2, non-Honours courses can be seen more often to represent graduate attributes, proportionately speaking.

Chart 2



Degree programme skills

Beyond considering skills at a broad level across all courses, the study also focused in on skills development reported on courses which are compulsory across UEBS owned degree programmes. As outlined earlier, the number of options available to students in terms of course selection (outwith the Business School) and therefore the range of potential student 'journeys' within UEBS is vast. As such, focusing on compulsory courses for UEBS owned programmes has helped to make sense of skills development, attainment and provision across our controlled and compulsory curricula courses. These courses are the key vehicles through which essential skills development needs to be driven (as they are taken by all students on a programme) and thus they provide a very useful focus for our analysis and future course development.

The graduate attributes which were delivered on each degree programme at core course level were assessed. Only core courses owned by UEBS were included. The following table (Table 2) represents the outcome of this assessment. Here, percentages are given to represent how often a graduate attribute is offered as a skill within the core course provision of a particular degree programme across its four years.

Table 2:

Please note: All International Business Programmes *with* a language (programmes 14-21 in Appendix 2) have the same percentage outcomes as 'International Business' shown below.

		Accounting and Finance	Business and Accounting	Business and Economics	Business and Finance	Business and Geography	Business and Law	Business Management	Business with Decision Sciences	Business with Enterprise and Innovation	Business with HRM	Business with Marketing	Business with Strategic Economics	International Business
Graduate Attribute	**Skill**													
Communication	Inter-personal Communication	33	40	50	25	20	40	40	36	40	38	37	47	50
	Verbal Communication and Presentation	72	93	100	63	100	90	100	79	73	92	82	73	63
	Cross-cultural Communication													
	Written Communication	78	87	88	69	80	80	80	79	80	69	73	87	75
	Influencing	28	33	25	19		30	30	29	20	31	37	27	13
Personal And Intellectual Autonomy	Ethics and Social Responsibility	6	7	13			10	10	7	7	8	9	7	13
	Self-awareness and Reflection	39	47	38	25	20	40	40	36	27	31	37	33	25
	Independent Learning and Development	56	60	38	50	20	50	50	36	47	46	45	33	25
	Creativity	6	7		6		10	10		7	8	9	7	13
	Decision-making	39	47	63	31	20	50	50	36	47	46	45	40	25
Personal Effectiveness	Leadership	28	33	25	13		20	20	14	13	15	18	13	
	Planning and Organising	6	7		6		10	10	7	13	8	9	7	13
	Commercial Awareness	17	13	38	13	40	20	20	14	27	15	18	13	25
	Effective team-working	39	53	63	31	60	50	50	36	60	46	45	33	25
	Assertiveness	11	13											
	Entrepreneurial									13				
	Flexibility		7	13	6	20	10	10	7	7	8	9	7	
Research and Enquiry	Problem-solving	61	67	63	50	60	60	60	62	53	54	55	53	38
	Analytical thinking	78	87	100	81	100	90	90	93	93	92	82	93	88
	Critical thinking	72	67	63	63	80	60	60	64	73	69	55	73	75
	Knowledge Integration and Application	17	20	13	25	20	30	30	36	20	23	27	27	25
	Numeracy and big data	44	47	50	25	20	30	30	36	20	31	27	40	13
	Independent research	67	80	75	50	60	80	80	64	87	69	73	67	75

This information in Table 2 helps to outline a mixed level of delivery regarding graduate attributes across core course provision. Skills in some instances are not represented at all across any programme (cross-cultural communication) with others being poorly represented (assertiveness and entrepreneurial behaviour, for example) across the majority of programmes. Other skills are represented more strongly across the core course offerings of different programmes including analytical thinking, verbal communication skills and written communication.

This information helps to identify opportunities within UEBS for improved delivery, and/or improved reporting of delivery around graduate attributes on its core course provision.

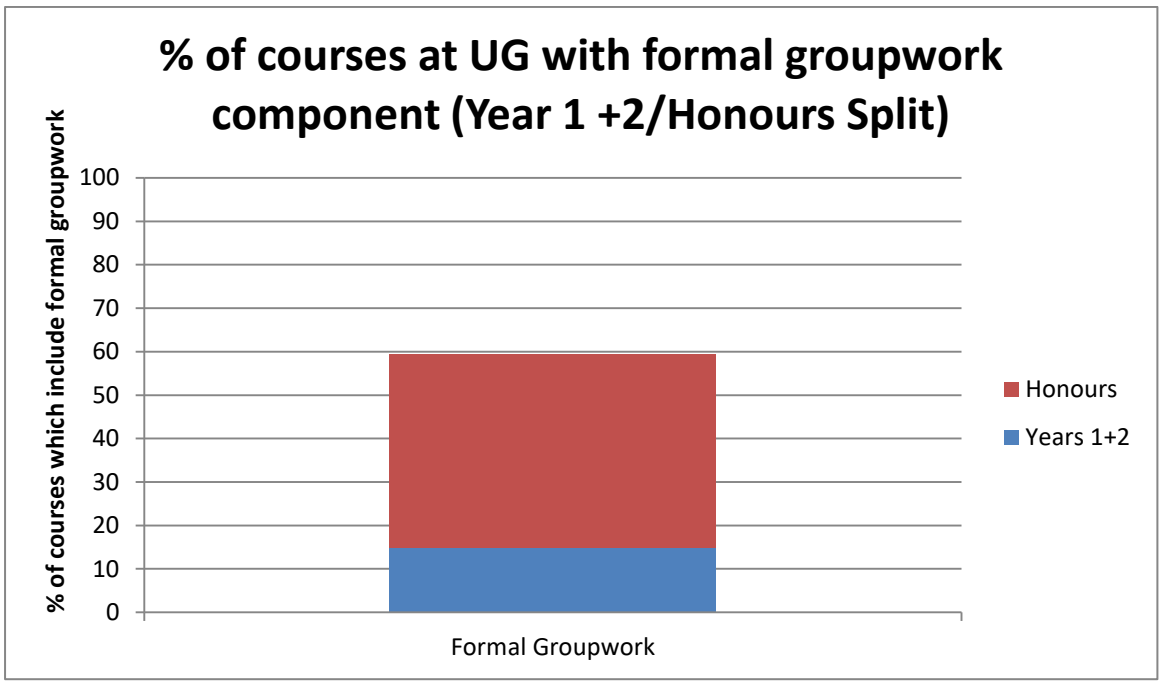
Digital Skills

Notably, given the increasingly changing nature of employment sectors and the graduate employment landscape, mention of digital skills was considered in this mapping exercise. It is worth noting that beyond courses whose subject specific purpose is to deliver technical content and expertise in these areas, only 4% explicitly mentioned the development of these skills. Digital literacy is a core priority for UEBS. Work is planned in summer 2018 to investigate digital literacy and digital skills development across UEBS curricula.

Group work

An additional interest in auditing undergraduate courses was to survey means of assessment across courses. Group work was highlighted in particular as a notable feature of this investigation. It was found that 59% of UG courses have some form of group work as an assessment method. This 59% includes courses where group work was the sole means of coursework or coursework which was supplemented with other forms of assessment. Non-Honours courses account for 15% of all UG courses with a group work component. Honours courses account for 45%. See Chart 3 below.

Chart 3



Group work was also considered proportionately to total course provision at these levels. See charts 4 and 5 below.

Chart 4

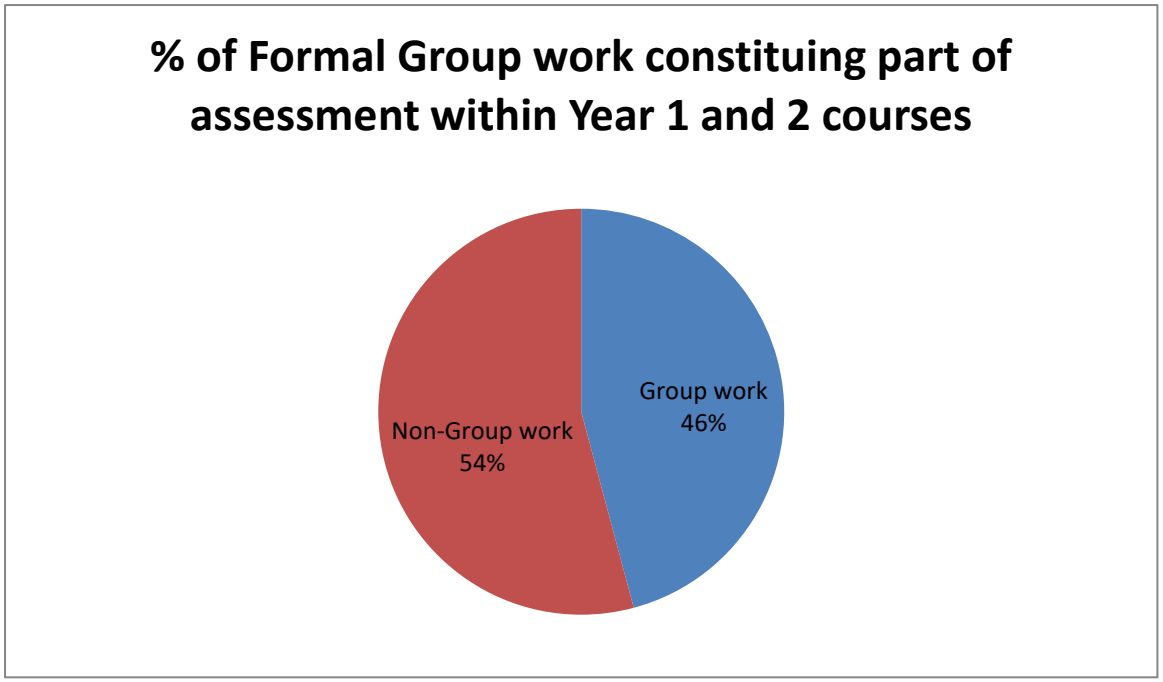
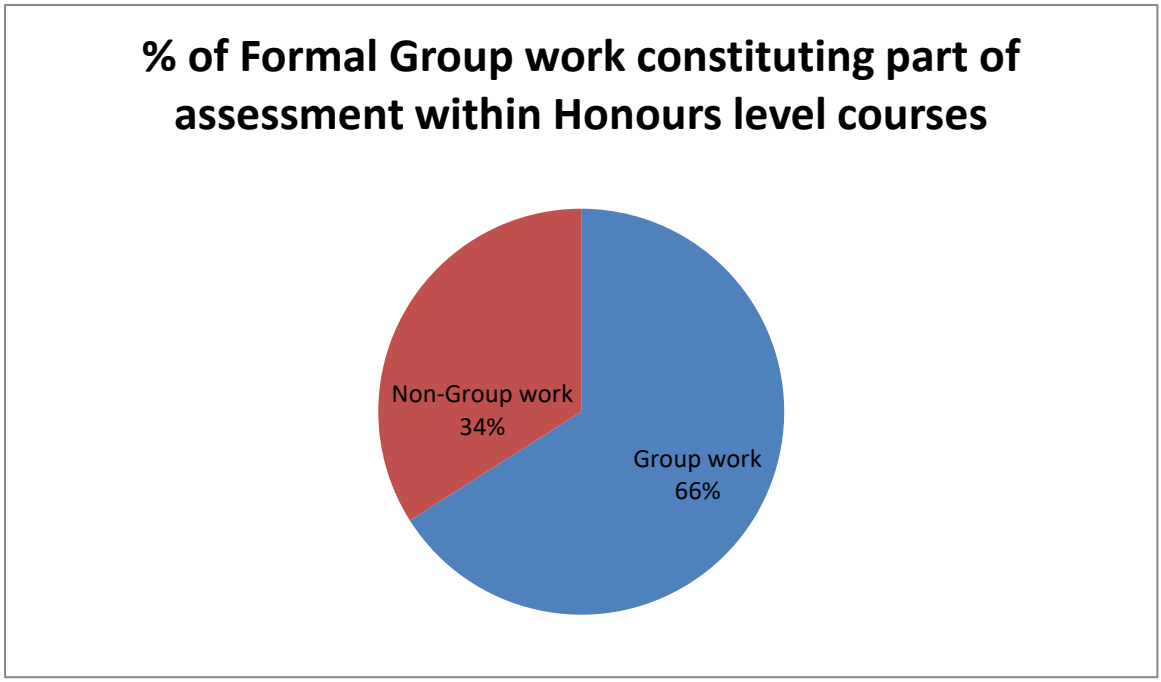


Chart 5



Notably, 66% of honours courses incorporate a group work component. Proportionately this is greater than at non-Honours level.

Reporting of skills

This study has demonstrated the importance of auditing skills development across our UG programmes and courses by highlighting areas arguably under-represented with regards to the provision of particular graduate attribute skills. Crucially, as well as underlining the value of a skills audit, this study identified inconsistency in how skills development is reported and articulated across UG courses. Consistent reporting is of key importance in order to avoid undermining the quality and assurances achievable through future skills audits, as well as to fully, accurately, and consistently, represent the skills development being offered to students across our course provision and programmes of study.

Under reporting

Notably, there were clear instances of under-reporting of skills within course handbooks. Notably, effective team working was represented across 31% of the courses however group work accounted for assessment within 59% of all courses. This raises questions of reporting, and provides an example of where skills are being under-represented in course handbooks. Of course this has implications for the potential of a successful audit, and student experience.

As noted above, often skills were 'compressed' in their reporting. For example, often in relation to subject specific skills 'generic' skills were mentioned but 'sidelined'. Handbooks would for example provide statements about the outcomes of their courses such as learning to 'critically analyse [subject specific entity]'. Here the subject specific skill was highlighted but the generic skills – in this

case critical and analytical skills were not individually highlighted as skills developed on the course. This serves to under-represent skills developed.

Consistency of reporting

Course handbooks lacked commonality in terms of sections included. There was a lack of consistency in the headings under which a student might reasonably assess skills offered by the course.

In addition, skills were also outlined in different places throughout course handbooks; sometimes outwith any skills specific section, such as those mentioned above (footnote 4). Both of these aspects potentially problematize the ability of students to clearly access, compare and articulate (before and after a course) the skills on offer, and developed, within and across courses and programmes.

Additionally, skills were inconsistently reported across similarly named subsections of course handbooks. 'Learning Outcomes' for example across all courses contained different types of skills development reflections within and across different courses. Again this could potentially problematize the ability of students to clearly access and compare skills on offer within and across courses.

Course handbooks differed in the language used to describe skills development - something which could potentially hamper clarity of understanding around the skills development on offer. Language often deviated from descriptors outlined in the graduate attributes list.

Recommendations on Reporting

- It is proposed that all course handbooks contain standardised sections to accommodate reporting of key skills, and key skills are fully reflected in the sections. This will allow students to more easily access and compare skills offered across courses.
- It is proposed that all comparable skills are reported consistently within the same subsections of course handbooks, and are contained and reported fully within these subsections. 'Learning Outcomes' for example across all courses should contain similar types of skills development reflections within and across different courses.
- In addition similar skills development should be represented with similar language. It is suggested that the language of graduate attributes are adopted and consistently used to reflect the skills development on offer.
- Skills covered in the course should be adequately and fully reported by course organisers, with reference to the graduate attributes. This should include a fuller outline than subject specific skills.

What are the benefits to student learning?

In terms of impact it is the intention that this study will have implications for students of UEBS.

Improved skills provision.

The developed skills matrix offers a template for future and ongoing audits. Access to a regularly updated and comprehensive overview of skills development across courses (and compulsory curricula of programmes) will aid those involved in programme design, course design and strategic leadership to offer balance and relevancy in the overall provision of graduate skills development within courses, years of study, and across whole programmes. This, of course, will have benefit to students in providing them with comprehensive and relevant skills development throughout their UG degree.

Improved 'access' to skills.

A clearer, fuller and more standardised set of procedures around how graduate attribute skills are reported will provide students with a more accurate representation of skills development offered at UEBS and therefore a platform for better reflection of their skills attainment at various levels of their progression.

A more systematic and consistent presentation of skills development should facilitate improvements in the reflective potential of students (hence improving student experience and employability outcomes). This improved presentation of skills development within course materials will provide on programme students with a greater foundation and support mechanism for understanding, reflecting on, and articulating their own personal development by year of study.

Dissemination of Study

Information from the project has been presented to the UEBS Undergraduate Learning and Teaching Committee, and has informed ongoing conversations in UEBS relating to student experience and employability initiatives. It will also be presented to the UEBS Executive Board. Going forward, there are also opportunities to disseminate the outcomes and process of this work to other departments and services across the University, including the careers service.

How could these benefits be extended to other parts of the University?

Overall, this exercise has demonstrated not only the value of an audit as a means of taking stock of, and achieving 'relevance' around, skills development provision, but also of the importance of accuracy and transparency in the reporting of skills as a necessary precursor to this.

Our analysis suggests that other schools and departments might equally benefit from such a graduate attribute skills audit. As a precursor to this however, it is strongly suggested that reflections firstly take place around the practices of reporting these skills. Insights at this level should ultimately lead to more robust information underpinning any such audit.

Appendix 1. UEBS Skills Matrix 2016/2017

Graduate Attribute	Skill (and identifier).	Definition
Communication	A: Inter-personal Communication	Using appropriate communication style through understanding the needs of others and showing empathy. The ability to have difficult conversations/deal with conflict effectively
	B: Verbal Communication and Presentation	Oral communication of complex ideas and arguments using a range of media. Involves listening, questioning, persuading and articulating.
	C: Cross-cultural Communication	Sensitivity and understanding the diversity in people and different situations including online.
	D: Written Communications	Written communication of complex ideas and arguments using a range of media from business reports to social media. Having the digital literacy skills necessary to operate effectively in a business context.
	E: Influencing	Ability to negotiate, influence and manage others through capabilities and relationships (building and maintaining), emotional intelligence and persuasion.
Personal And Intellectual Autonomy	F: Ethics and Social Responsibility	Ability to recognise and address ethical dilemmas, corporate social responsibility and sustainability issues, applying ethical and organisational values to situations and choices.
	G: Self-awareness and Reflection	Critical self-awareness, self-reflection and self-management in order to fully maximise potential
	H: Independent Learning and Development	Self-directed lifelong learning as part of continuing personal and professional development.
	I: Creativity	Being able to think creatively, conceive new ideas and manage the creative process in self and others.
	J: Decision-making	Being able to make, implement and review decisions based on appropriate techniques.
Personal Effectiveness	K: Leadership	Selecting appropriate leadership style for different situations. Objective setting, motivating, monitoring performance, coaching and mentoring.
	L: Planning and Organising	High personal effectiveness through continuous learning and reflection on practice and experience by using appropriate project and time management tools.
	M: Commercial Awareness	Displaying commercial acumen and knowledge of the current local and global business landscape, industries, organisations and specific roles.
	N: Effective team-working	Effective performance within team environments including the ability to recognise and use individuals' contributions in group process, and persuade negotiate and influence others.
	O: Assertiveness	Giving direction to tasks and people in a confident and effective manner. Using judgement on when to take the lead and when to follow others when working in teams and groups, and when to question others.
	P: Entrepreneurial	Ability to demonstrate an innovative approach using creativity, collaboration and risk-taking, whilst keeping commercially/professionally/situationally aware.
	Q: Flexibility	Effectively adapting emotions, thoughts and behaviours to environments that may be unfamiliar, uncertain and/ or diverse
Research And Enquiry	R: Problem-solving	Being able to create, identify and evaluate options in order to solve complex problems.
	S: Analytical thinking	Ability to analyse, synthesise and methodically appraise thoughts to break down complex problems and manageable components.
	T: Critical thinking	Capability to evaluate information through; identifying assumptions, detecting false logic or reasoning and defining terms accurately in order to make an informed judgement.
	U: Knowledge Integration and Application	Using information and knowledge effectively in order to abstract meaning from information and to share knowledge across fields, including the use of quantitative skills
	V: Numeracy and big data	Proficiency, confidence and competence with ICT, numbers, measures and large volumes of data.
	W: Independent research	Ability to conduct self-directed research and enquiry into business and management issues through research design, the collection and analysis of quantitative and qualitative data, synthesising and reporting

Appendix 2: UEBS Undergraduate Degree Programmes

1: Accounting and Finance

2: Business and Accounting

3: Business and Economics

4: Business and Finance

5: Business and Geography

6: Business and Law

7: Business Management

8: Business with Decision Sciences

9: Business with Enterprise and Innovation

10: Business with HRM

11: Business with Marketing

12: Business with Strategic Economics

13: International Business

14: International Business with Arabic

15: International Business with Chinese

16: International Business with French

17: International Business with German

18: International Business with Italian

19: International Business with Japanese

20: International Business with Russian

21: International Business with Spanish