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Valuing the human asset – the impact of university placements on academic performance and graduate employment amongst management students.

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Abstract. The employment market for graduates is competitive with employers requiring appropriate work experience in addition to academic qualifications. Sandwich courses, where up to a year is spent in industry, provide an opportunity for structured work experience to be gained alongside studying. Benefits of placements include improved academic performance and the development of transferable skills to increase employability. This paper evaluates the impact of placements on academic performance and graduate employment among management students. Analysing performance data and graduate destinations data, results indicate that management students completing a placement are more likely to perform better academically with improvements in their personal grades between year 2 and the final year. Additionally, a qualitative themed analysis of student experiences indicates placement students feel more confident in engaging with the graduate recruitment process, with a better understanding of their personal skills and an ability to articulate their experience in relation to the workplace.

1. Introduction

Unemployment in the UK continues to remain high with youth unemployment being a particular concern as 22% of 16-24 year olds were classed as unemployed in December 2011 [1]. Gaining the first steps on the career ladder is increasingly difficult with graduates facing a similar situation; a degree in itself is no longer a guarantee of improved employment prospects with graduate unemployment for the class of 2010 rising to a 15 year high of 20% [2]. Graduates are entering a competitive job market; however, employers state two key factors for successful graduate employment are an appropriate mindset and relevant work experience [3], skills that are not necessarily easily acquired within the academic curriculum.

One way of gaining work experience while studying is to take a sandwich course that involves a period of time spent within a relevant industry. Dearing's [4] influential report from the National Committee of Inquiry into Higher Education recommended the need for work experience amongst undergraduates to provide both academic and employment benefits; an issue currently on the government agenda as a method of addressing the problem of high youth and graduate unemployment. Despite public support, the number of students taking a placement has reduced from 10% in 1994-5 to 6.5% in 2006-7 [5] defying the perception that placements are a beneficial undertaking. This paper will therefore evaluate the impact of sandwich placements in terms of academic performance and graduate employment by comparing placement and non-placement management students over a four year period, to demonstrate to future students the potential benefits.

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2. The role of sandwich placements in academic development and employability

The Higher Education Funding Council for England defines a sandwich course as one including 'periods of practical work in organisations outside the university or college' [6]; while the Higher Education Statistics Agency further differentiates between thick sandwich where the placement lasts for a full academic year and thin sandwich where shorter placements are taken typically between two and six months [7]. Regardless of its format, placements provide multiple benefits in developing both academic and employability skills amongst undergraduates [8].

Students returning from placement across a range of discipline areas have been shown to achieve a higher level of academic performance than their non-placement peers [9]. Even though performance is variable and personal to the individual student, a few percentage points increase in the final year can often be sufficient to move into the next classification group as final year grades are usually heavier weighted. Final year students after a placement exhibit higher levels of motivation towards their studies [10]; possibly due to an extra year's maturity [11] but also recognition by the students that personal commitment is required for success both academically and in the workplace. It is believed academic performance improves due to knowledge gained while on work experience and the ability to relate classroom theory into practice [12]; Bourner and Ellerker [13] argue the learning experience on placement has to be integrated into the academic aspects of the course to be fully effective. Improvements in academic performance must be considered in context though; Surridge [14] found that more academically able students are likely to choose a placement in comparison to less able students so higher final year grades would be expected from this group.

Knight and Yorke [15] link the opportunity of a better degree classification to the other key benefits of a placement; employability and gaining a graduate job. They recognise that employability is a complex construct, comprising a mix of subject knowledge and transferable skills that are not singularly definable and will vary from industry to industry. Employers increasingly prefer graduates to possess transferable skills and be considered as work ready; providing employee flexibility in the dynamic environment of modern business [16]. Transferable skills are personal attributes that can be taken from one job role to another as a career develops; Hillage and Pollard [17] refer to this as self-sufficiency in order to sustain long term employment. The Confederation of British Industry [5] recognises graduate transferable skills are being attained through the curriculum but identify the hardest one to develop, therefore the one most lacking, as commercial awareness. Sandwich placements are an ideal mechanism for gaining practical work experience; developing skills such as self confidence, time management and initiative [18] but more crucially an understanding of business practice. Employability skills add value to a graduate so that they are not solely relying on academic performance when applying for jobs [19]. Mason et al [20] found placement students were more successful at gaining graduate level employment within six months of leaving university than non-placement students, acknowledging that certain employability skills are easier to develop in the workplace rather than the classroom.

Practice on accrediting placement learning varies between universities; in some, students are awarded credits towards their final classification while in others it is non credit bearing but acknowledged with a separate award. As the work experience opportunities offered to students will differ between placements it is important to capture the learning in a meaningful way that can be applied across a broad spectrum of employers. Blake and Summers [21] believe reflection by students on their learning is essential and recommend a multi-stage approach with a formalised diary and a placement report which is then triangulated with supervisor appraisals and visiting tutor feedback. It is acknowledged that student learning can be independent of the quality of the placement experience itself; students may learn substantially from a placement that is less than satisfactory or equally, not maximise their learning potential on a high quality placement [22].

One difficulty faced by graduates is being able to articulate their employability skills [23] in relation to employer requirements. Placements allow students to identify their skills and abilities, providing specific examples of work achievements to demonstrate their potential contribution to an organisation if employed. The process of graduate recruitment in itself is a challenge; graduate

employers, usually large, well known organisations, are using increasingly sophisticated and complex recruitment methods [24] to select the most suitable graduates to ensure long term success for their business. Specific techniques and practice will vary between organisations but applicants need to progress successfully through a number of stages before being offered employment. Undergraduates often lack experience in promoting their attributes in the application process; even though universities provide support, typically through a careers service, the process of graduate recruitment can be daunting with students not engaging in the process appropriately being less likely to be employed upon graduation. The application process for placements is similar to the graduate recruitment process therefore sandwich students have valuable experience in gaining employment that can be used later. Securing a placement can be time consuming and difficult with Aggett and Busby [25] believing more determined students persist until a place is found, characteristics required for the graduate recruitment process too.

Based on the positive evidence that placements enhance academic performance and employability, the decline in the number of students choosing a sandwich course could at first appear surprising. Bullock et al [26] explored non-placement participation with students citing not wanting a break in their academic studies, having previous work experience and not wanting to pay additional fees for the year as reasons for not choosing a placement. Causing greater concern were students who chose not to participate due to lack of information and understanding of placements and their benefits. Students should decide individually whether to take a placement or not, based on their background and personal circumstances. The decision, however, should be an informed one; the role of universities is to advise students on the benefits of placements and support them in gaining a suitable position to develop long term academic abilities and employability.

3. Research Methodology

As a case study, this paper has three objectives using a mixed methodology to collect, analyse and evaluate the data to address them. The first objective, to examine data from the last four years compares academic results in year 2 and final degree classifications for placement students, using non-placement students as a comparator. The data, extracted from official university transcripts, forms the basis of the quantitative academic performance research and was available for all students on the course so a 100% sample was gathered.

The second objective, comparing graduate employment rates six months after graduation between placement and non-placement students also used official university data collected for the annual Destinations of Leavers from Higher Education Survey compiled by the university's Careers and Employability Service as required by the Higher Education Statistics Agency. Data has been collected using the current system since 2008; therefore only two years 2008-9 and 2009-10 can be analysed as no data is available for the first year of this study and data for 2011 is currently being collated. Responses are collected six months after graduation; the target population is all graduates with the lowest response rate being for non-placement students in 2008-9 at 37% and the highest being 100% for placement students in the same year.

The final objective, a qualitative evaluation of students' experiences in gaining employment upon graduation, used an online questionnaire. Open ended questions gathered rich data on the graduate's feelings, experiences and understanding of the role of placements in relation to employment. In total the sample comprised 24 graduates across the four years, half who had taken a placement and half who had not, with responses being received from 10 who had graduated from 2009 onwards. Additionally, a modified questionnaire was sent to all 2011-12 final year students to compare placement and non-placement students' feelings regarding their employment opportunities upon graduation and their current engagement with the graduate job recruitment process. A total of 20 responses were received equally split between those taking a placement and those completing in three straight academic years. By contacting both graduate and current placement and non-placement students, the range of experiences represented all possible combinations of study and the sample sizes were appropriate considering the rich, contextual data provided by the questionnaire.

4. Research Findings

4.1. Academic Performance

Degree classifications are based on average performance in year 2 and the final year with a third to two thirds weighting. A 1st is awarded at 70% and above; 2.1 at 60-69%; 2.2 at 50-59% and a 3rd at 40-49%; in the UK large blue chip organisations generally require a 1st or 2.1 for graduate employment. A good academic performance is required in year 2 to underpin results but an improvement in the final year average, particularly if a student is just below a boundary, can move the classification up a grade; for example 58% could be improved to a 2:1 by raising performance a few percentage points. Table 1 below indicates the percentage of degrees awarded in each classification over the four years of the study.

Table 1. Degree classifications awarded (in %'s).

Year of graduation		1	2.1	2.2	3
2011	Placement	54.5	36.4	9.1	-
	Non placement	21.4	39.3	39.3	-
2010	Placement	14.3	35.7	50.0	-
	Non placement	6.5	29.0	58.1	6.5
2009	Placement	-	33.3	66.7	-
	Non placement	5.6	11.1	66.7	16.7
2008	Placement	100.0	-	-	-
	Non placement	-	32.3	58.1	9.7

Over the four years 34% of placement students were awarded a 1st and 32% a 2.1 in comparison to 13% and 29% respectively for non placement students. Awards do vary between years due to cohort effects of different students but even in 2009 when no placement students received a 1st overall performance was still better. A point worth noting across the four years is that a placement student has never been awarded a 3rd; the lowest honours classification. Setting the above grades in context a number of new initiatives have been introduced into the course which should have contributed to improved performance for all students in 2011; however, placement students still outperform non-placement students indicating all have benefited from the initiatives.

Breaking down results further, Table 2 compares the average marks awarded in year 2 and the final year.

Table 2. Average marks awarded in year 2 and final year.

Year of Graduation		Year 2 average%	Final year average%	Change
2011	Placement	64.3	69.4	5.1
	Non placement	61.0	61.5	0.5
2010	Placement	59.3	63.2	3.9
	Non placement	56.9	57.1	0.2
2009	Placement	56.2	61.2	5.0
	Non placement	54.0	54.4	0.4
2008	Placement	70.9	73.1	2.2
	Non placement	58.4	54.3	-4.1

These results are consistent with the literature in that year 2 average grades are higher for placement students; confirming that more academically able students are likely to choose a sandwich placement. Comparing year 2 grades with the final year, placement students see a greater increase in their average final year marks which has an impact on the degree awarded; 37% of placement students moved up a classification in comparison to 20% completing in three academic years. Non-placement students are also more likely to see their marks move down a classification with 14% experiencing this. Across the four years only one placement student moved down a classification but they had experienced significant personal problems outside the course which had impacted on their studies.

The performance data supports the contention that placement students are more likely to be awarded a higher classification of degree but that these students were already performing at a higher level and could be considered the more able among the group. Academic performance is only one aspect of gaining employment but organisations do use grades achieved as a benchmark for entry into the graduate recruitment market.

4.2. Employment Rates Six Months after Graduation

Table 3 below analyses data from the Destinations of Leavers in Higher Education Survey identifying student employment rates six months after graduation.

Table 3. Destinations of Leavers in Higher Education Survey (%).

Year of graduation	Employment	Further Study	Unemployed	Other	No response
2010 Placement	65	14	-	-	21
Non placement	54	13	10	13	10
2009 Placement	66	17	-	17	-
Non placement	27	-	10	-	63

Clearly placement students are more likely to be employed in comparison to non-placement students; the high no response rate by 2009 non placement students does leave the picture incomplete, though no reply may be an indication of not having obtained graduate employment. The survey identifies the specific organisations that graduates are employed by with 25% returning to the company where their placement had been undertaken. By recruiting former placement students, employers are potentially lowering their risk as the graduate has already had the opportunity to demonstrate their abilities. Placement students were also more likely to be employed on graduate training schemes with companies that are household names; places on such schemes are highly prized and the competition is intense. Non placement students were also successful in gaining recognised graduate employment; these students tended to be slightly older having worked before attending university or using part time work contacts to support their applications. The group of students least likely to be employed were those who had limited work experience and probably less able to demonstrate their employability

4.3. Employment Experiences

Every questionnaire respondent who had taken a placement found the experience beneficial both in terms of employment and academic performance. Most students had planned to take a placement at the start of the course identifying it as part of their long term career strategy; feeling structured work experience would be beneficial upon graduation. Three however, decided to take a placement after the workshops at the beginning of year 2 realising at this point the benefits of a placement.

The process of gaining a placement had been harder than expected with recruitment and selection procedures in some cases being similar to those used upon graduation. Students felt supported by the placement unit; their experience of interviews and assessment centres preparing them for graduate job

applications during their final year. The graduate recruitment process can be daunting; one organisation had six closely scrutinised stages before a final decision was made, placement students felt more able to cope with this approach than non-placement students. The Careers and Employability Service at the university advise students to take a targeted approach to graduate applications; a single, well prepared application tailored to the requirements of an advertisement being better than a scatter gun approach of general applications to multiple organisations. Placement students were more likely to use this strategy having realised it increases the chance of success, one student advising: “do not spread yourself too thin, concentrate on a specific industry ...tailor your CV and cover letters, I did not do this originally and found myself wasting a lot of time applying for placements without a well laid out plan and getting a lot of rejections as a result.”

Placement students felt they had developed an enhanced skill set, citing examples of how to work in a corporate environment, developing a professional work ethic, working under pressure, working as part of a team and above all confidence in their abilities. They had practical experience, could demonstrate achievements to potential employers and were able to articulate how they could make a contribution in the workplace. In a competitive graduate market being able to practically demonstrate employability is a key factor for success.

While on placement students were able to link classroom theory into practice; a benefit also brought back to the final year of study with students stating “it provided me with reference points when exploring Business Management theories and concepts.” and “I find myself comparing theories to practical examples that I experienced whilst working.” Being on placement impacts on study methods during the final year; having had the structured routine of full time employment this approach was continued upon returning to university, “I am happy to work longer hours, I can also see how hard I’d have to work now to get to a position such as my managers –it makes it more tangible and this motivates me.” Placement students also expressed a determination to succeed, a feeling of being better organised and an ability to focus on long term goals. For a number of respondents grades improved in the final year sufficiently for them to move up a classification with a belief that the placement had contributed towards this in terms of knowledge, understanding and a desire to work at a high level.

Current final year students who had taken a placement felt confident in their abilities to gain employment upon graduation using their placement experience to support applications. They were proactively applying for positions and being invited to interviews, though it is too early in the recruitment cycle for job offers. In contrast non-placement current final year students are more pessimistic about their opportunities. A number were applying for jobs but with limited success with just a few telephone interviews; they were mainly relying on websites rather than using the careers service to structure their approach and felt isolated. Four respondents had planned to go on placement but failed to secure a position; one student had received 30 rejections, another realised too late the level of commitment required to produce high quality applications. Non-placement students appeared to be less strategic in their graduate job search and less likely to use university support services to maximise their potential. Only one respondent was as confident as the placement students; they had arranged two extended internships during the summer holidays, providing a viable alternative to the sandwich route and taking personal responsibility for their development.

Graduates not taking a placement did not feel disadvantaged long term with respondents securing appropriate level employment; though not always immediately upon graduation. Employment was with organisations filling individual vacancies rather than large scale graduate recruitment schemes. Respondents felt they were progressing well with opportunities for career development. Responses were only received from graduates successful in gaining employment though; experiences of those failing to secure graduate level employment six months after completing the course would have provided a contrasting view.

5. Conclusions

The literature and student experiences from this research support the view that sandwich placements are beneficial, underpinning academic achievement and providing practical work experience.

Placement students have higher employment rates upon graduation than non placement students; frequently returning to their placement organisation. Placement students are more confident in their ability to secure employment; they have a clear early career strategy and feel able to demonstrate work based achievements. Higher levels of academic performance are achieved by placement students though more able students are likely to choose the sandwich route; final year grades rise by a larger percentage for placement students than non placement increasing the chance of improving their final classification.

Non placement students are successful too with individuals achieving good academic performance and employment upon graduation. Gaining employment can take longer and a wider range of companies considered rather than large scale corporate recruiters. Academically weaker students are unlikely to take a placement; possibly trying but being rejected which subsequently undermines their confidence for graduate employment. Universities must support non placement students in the development of employability skills either through the curriculum or offering extra-curricular activities.

Overall success depends on individual ability; the graduate job market is competitive but able students can secure excellent positions with placement students more likely to be successful. Structured work experience integrated into a degree is clearly beneficial during a course and in enhancing employability upon graduation; active promotion of these benefits could stem the national decline of the number of undergraduates currently taking placements, meeting the Confederation of British Industry's demand for work ready graduates.

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