

Examining the impact of Vocational Education: What price for choosing the alternative route?

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Abstract

This paper draws on the finding of an investigation study that claims the vocational elements of the Engineering Diploma Higher level offer decidedly effective preparation for employment, indicated by small scale studies of engineering students tracked during their two year course.

The importance of hands-on learning is, indeed, reflected in the '14 – 19 Education and Skills' White Paper. What is reported here seeks to demonstrate the way in which the image of Vocational Education which has always suffered from low status because of the academic/vocational divide generating issues of parity of approval.

The study maintains that more effective evaluation of students' readiness for the world of work, both at school and the work place, could lead to better pedagogy, students skills and the capacity for independent learning. Principally twenty-five year 10 GCSE students were tracked during their first year and on their ten day work placement. Using the analysis of the data collected from the interviews, the paper will discuss the key factors which students and employers perceive to affect the suitability and relevance of a course to give learners activities to develop skills that are more suited to an occupation.

Key words

Preparation for employment, work-related learning, independent learning, vocational education, relevance of a course.

Introduction

The intention of vocational education is to give learners activities to develop skills that are more suited to an occupation. This is a movement away from the traditional, academic curriculum that in the past many British schools uphold. One of the fundamental obstacles for education providers and policy makers is overcoming this attitude regarding vocational education and qualifications.

The notion of using time in school to prepare students for the workplace has always been a contentious issue. The view that manual jobs seen as inferior, and that 'work' itself is a poor relation to academic study is perpetuated in the 2005 White Paper which calls for the 'gold standard' of A-level to be retained.

We have never had a vocational education track that is well under stood as the academic one, nor one which has been seen as an effective means of preparing young people for work or further study.

(HMSO, 2005, p18)

The distinction between the 'academic routes' and the 'vocational routes' is reflected in the specialised diplomas. Initially, these were referred to as vocational diplomas, although the word 'vocational' has been dropped, but their vocational orientation is maintained through the partnerships made up of schools, colleges and employers.

Perhaps one of the main struggles surrounding governments and education providers is to see the engineering diploma as a general qualification rather than an occupational one. Policy initiatives that emphasise standards and rigor move away from the student-centred nature of vocational qualifications and their particular attractive form to students who find the academic route basically 'unattractive'. By being tied to GCSEs and A-levels, with grade equivalences and similar modes of study, the engineering diploma is always going to be viewed by schools, students, parents and employers as 'second rate'.

The profits of vocational learning are self-evident: if we learn by doing as well as by thinking, reading and writing, we develop skills and competences as well as knowledge. Lucas et al (2010)

A crucial element of the diploma is preparing students for the world of work. This work-related learning has developed rapidly over the past decade, built between employers, schools, colleges and Education Business Partnership Organisations (EBPO) who are all involved in delivering it. Knight (2008) adds that work-related learning plays a vital role in young peoples' journey to a successful adulthood and is a key part of our reforms to the curriculum and the new diplomas.

Is it true that this recent explosion in schools' use of vocational qualifications is a result of tactical attempts to climb league tables. But the government's new ruling of making all qualifications worth one GCSE regardless of teaching time will certainly end the claims of schools' strategic advantage. This area has been met with much scepticism again from educational practitioners, particularly Head Teachers, as some feel that these courses are a soft option and allow schools to artificially enhance their examination performance particularly if every child opts to study one of these qualifications.

Practical and vocational education is regarded very largely as a means of enhancing the motivation of learners of average or below average potential. Richardson (2009)

The opinion that vocational education should be geared to employers' needs has been a constant theme throughout educational policy; it was a key recommendation of the Tomlinson Report in 2004 and the recent Wolf Report 2011. However, this report has found little evidence that work preparation is a principal aim of the engineering diploma courses in schools, or that work experience forms a structured part. This suggests that work-related dimensions of the diploma are being increasingly subsumed to its use as a stepping stone to advanced study for the majority of students, thus diminishing its value as work preparation and contributing to the failure to provide sufficient skilled workers for the future. The research carried out at this educational establishment will show that the work-related elements of the engineering diploma are a major reason why students take the course, even if the majority of students decide to abandon the opportunity to go on to the Advanced Level and seek employment.

In the early 1990's measures were being drawn to 'improve' vocational education, and how competence could be objectively assessed. What constitutes work? Could it be within the educational institutions – simulated or real- as well as industry? (Watson, 1993). There is a lack of agreement about what vocational education really is or who is directly responsible for its implementation, programme of study or more fundamental who should foot the cost? The creative, innovative student, who as an independent learner, can operate most effectively in the workplace. Academic excellence does not necessarily equate to work place competence.

Methodology

The purpose of this study is to investigate the premise that the vocational elements of the engineering diploma Higher level offer distinctive preparation for employment. Whether vocational learning at school has had any positive or negative effects upon; motivation, levels of achievement, choice of post 16 learning routes, awareness of/and attitudes towards a variety of career options will require empirical data for evaluative action. Addressing the challenges among 14-19 year olds will become relevant of certain knowledge and gaining a better understanding of how to prepare for and contend with the demands of the world of work.

The hypothesis being tested is that vocational education is a sound way to prepare students for the world of work. This evidence was first verified by looking at views specifically of the twenty-five year 10 students having just completed four of the eight controlled assessment units required for the higher level. The questionnaire used considered the relationships between the diploma course and jobs and compared student views and attitudes towards the end of the first year. It was thought that this could provide evidence on the effectiveness of the progress made for future employment, in terms of knowledge and key skills.

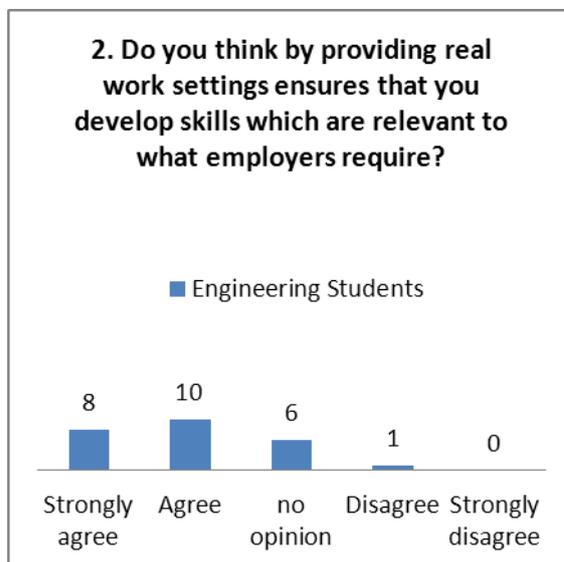
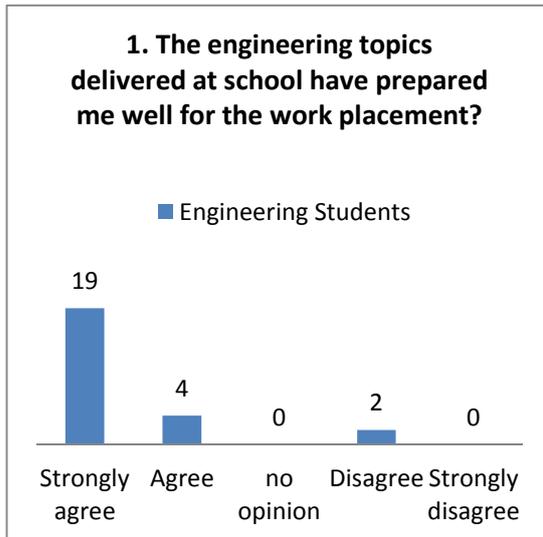
The second part of the study focused towards work-related learning. It was the author's intention to examine a small sample of students tracked during their work placement. Students' responses to a variety of questions which were observed at various points both during and after their work experience. Notes were made on observation sheets during each visit. These sheets recorded the following aspects of the study: the progress made by each student between the visits; difficulties encountered, both those referred to by the students and those observed during the visit. Also, informal interviews were conducted with the students' supervisors.

Half way through the second year of the course each student was asked to report individually up to six things they felt about the validity of the diploma. Vocational qualifications are extremely skilled based and emphasises the transferability of genetic skills. Therefore, if students do not feel that transferable skills are an important skill being taught and developed within school, then it should follow that vocational qualifications do not have a place in the curriculum. The students are deliberately asked if only GCSE's or A levels should be offered in a Key Stage 4/5 curriculum respectively. The idea of this statement is to gain an insight into whether or not students feel that transferable skills and vocational education go hand in hand. Vocational qualifications are by nature less examination focused than 'traditional' education. It was important to be able to see if there was still a view that knowledge can only be tested by examination and therefore students would not feel that vocational qualifications are less valid because there are fewer or no examinations. The final statement that vocational qualifications are of lesser standard to GCSE's really tests the underlying atmosphere within the school. The assumption among students, and some staff, is that you only study the diploma because its not an academic subject therefore it could not be more difficult than the other more traditional subjects.

Results

The data collected in relation to the opinions of the students who had completed the first year of the engineering diploma course are shown in figure 1.

Students' responses to a variety of questions which were observed at their work placement can be found on table 1 & 2, and finally the six things students felt about the validity of the diploma are found in figure 2.



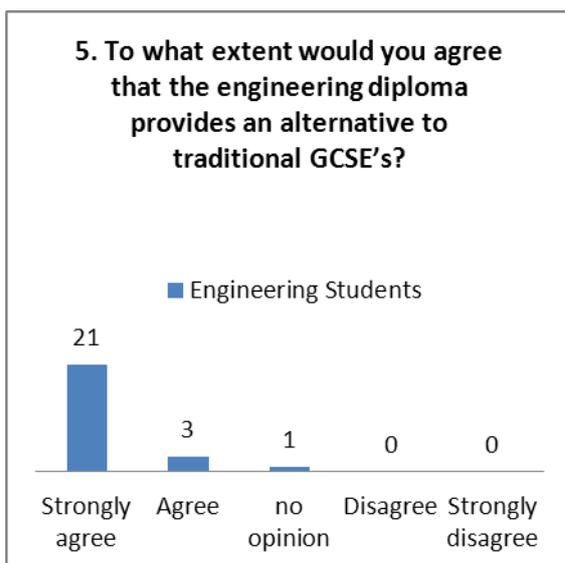
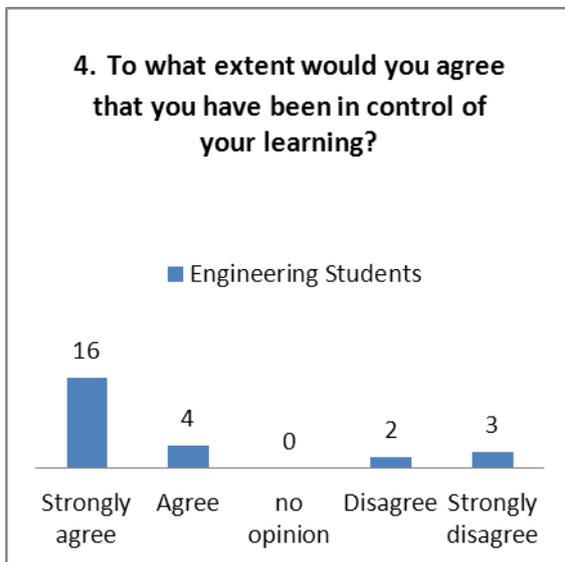
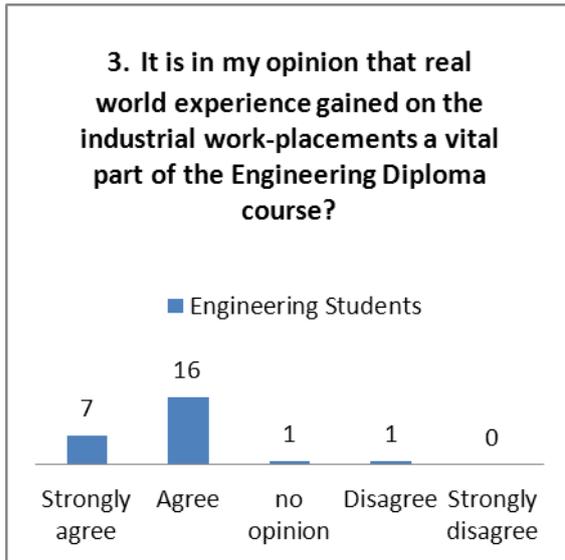
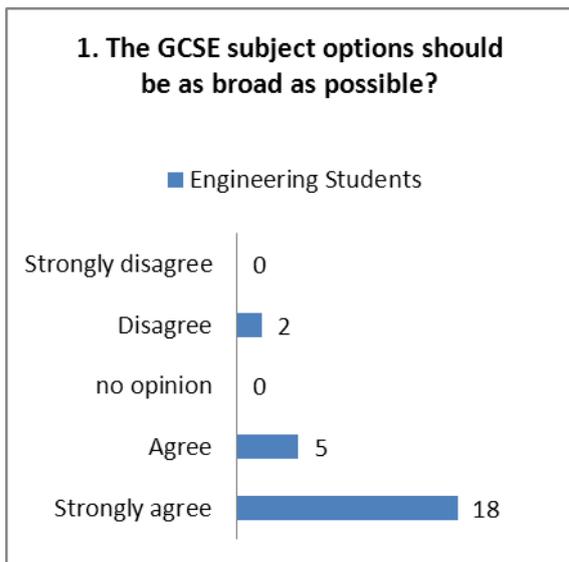


Figure 1

Students' positive responses to a variety of questions which were observed at various points both during and after their work experience		
Summary of comments	Number of responses (% of students)	
There was plenty of time to develop my engineering skills	21	(84%)
I have really enjoyed my time on work placement	16	(64%)
I have been able to manage my time well during the work placement	16	(64%)
I have been able to develop my team working as well as problem solving skills	15	(60%)
I have learnt about different approaches to making while on placement	9	(36%)

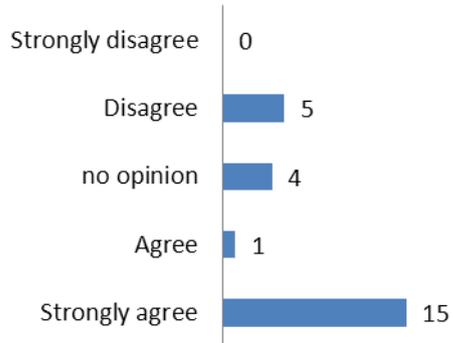
Students' negative responses to a variety of questions which were observed at various points both during and after their work experience		
Summary of comments	Number of responses (% of students)	
I found the whole experience of working on my own over whelming	4	(16%)
I did not receive clear instructions on what I had to do	4	(16%)
I felt as though I was being treated unfairly	2	(8%)
There was too much work for me to do during my time on work placement	2	(8%)
My relationship with my supervisor was poor	1	(4%)

Table 1 & 2



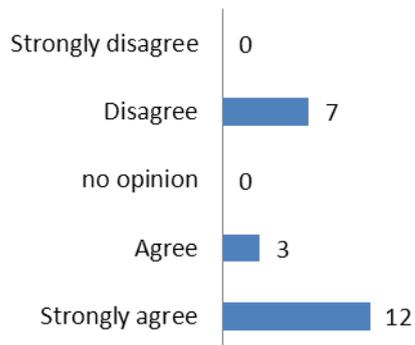
2. It is important to develop transferable skills?

■ Engineering Students



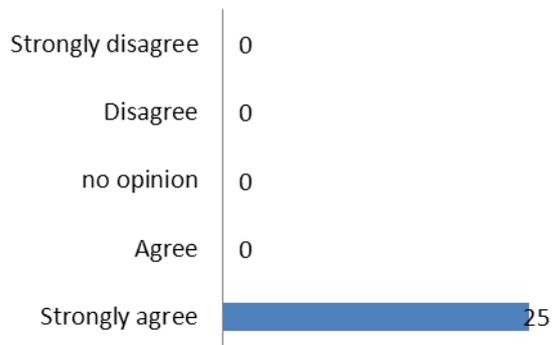
3. GCSE's should be the only subject option at Key Stage 4?

■ Engineering Students



4. Happiness and success is important at Key Stage 4?

■ Engineering Students



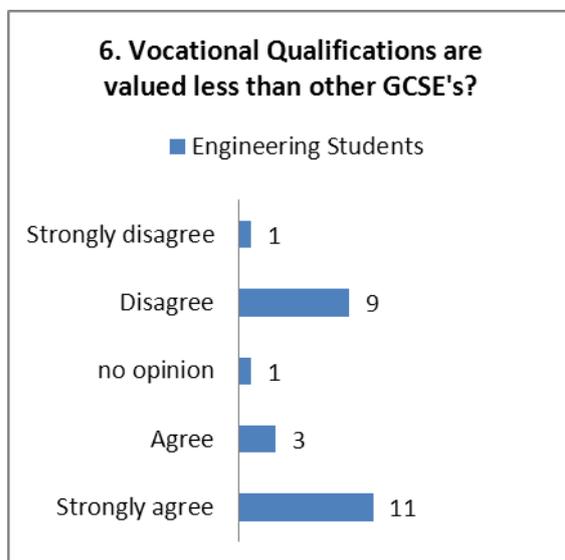
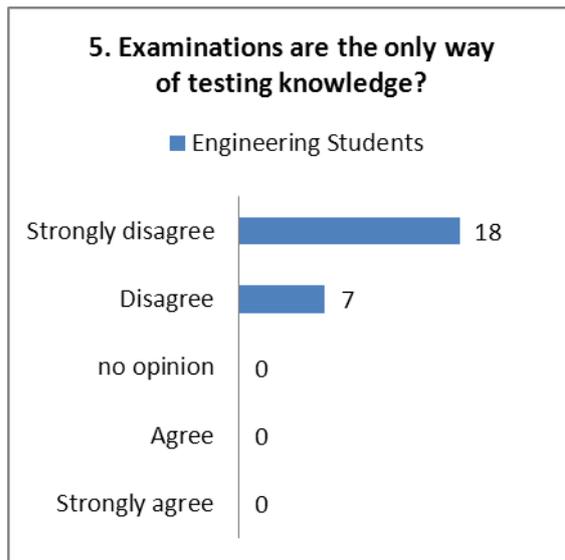


Figure 2.

Discussion

The study shows that students' views on the diploma were overwhelmingly positive, and that they consider it an effective and relevant preparation for work. Most students believed that the diploma had demonstrated its value both through classroom activities and work experience placements.

Evidence from diploma students tracked on their work placement shows that they understood that providing preparation for employment was arguably, the principle aim of the course, and this has been achieved. This view was shared by the selected employers, as the analysis of evidence shows.

It is accepted that the study was small-scale, and the amount of evidence from employers limited. Also it can be confirmed that the main reason why so few students go on to the advanced level after completing the higher level of the course is the schools high expectation for them to seek a place in higher education.

The relevance of the question to students' current, as opposed to future, position was doubtful because, in hindsight, it was clear that a majority of students saw the engineering diploma as a stepping stone to future career rather than a job to enter into in the near future. Most students did not know precisely which careers or jobs they wanted to go into, although most had some idea of the general occupational area such as medicine or law.

As an advocate of vocational education, the next statement is of particular interest. The majority of students believe that exams are not the only way to test knowledge and approximately half believe that vocational education is of a lesser standard than GCSE's.

The main ways students felt that the diploma had provided suitable and relevant work preparation were in the areas of key skills, particularly machine shop related work. Students also considered aspects of independent learning, through the grading process, improved skills of planning and handling information, and meeting deadlines necessary to perform capably at work.

While teachers disliked the assessment overload they felt that opportunities for students to improve their work and obtain the higher grades, was a positive feature. The view from the students that the course was quite rigorous in its content and assessment process helped them manage their time. They praised the assessment as being very manageable in the time constraints.

Summary

This research has value added in confirming the decision to differentiate a post 16 curriculum that existed for many years by expanding into vocational education. The one influence that should inform diploma students is that it provides a 'hands on' experience of the subject.

One conclusion that can be drawn from the research is that the form of externally assessed learning that is most highly valued remains strongly conceptual rather than applied. The evidence presented suggests that the introduction of vocational qualifications has been worthwhile to the traditional GCSE route. Schools running the diploma since 2008 - 2011 have significantly increased numbers. It remains to be seen whether the introduction of the governments downgrading of the course (reduced from the equivalent of five GCSE's to one) has had on future student numbers, if vocational education is to take its rightful place as a valid equivalent to other traditional GCSE options. During the initial start of the research, AQA-City & Guilds announced that 'In the longer-term interest of young learners, and after careful consideration, AQA-City & Guilds has decided not to take any new registrations or entries for Diploma and Principle Learning courses for the academic year starting in September 2012'.

At the higher level of the diploma, work-based competence has not been seen as a priority by educators. There has been no structured role for employers and industry or funding. This supports the argument that the diploma has been seen more of an academic than work-related educational vehicle - hence a missed opportunity for schemes to be developed to meet employers' needs for skilled workers, as employers had comparatively little to no part in determining 'competence' or implementing vocational schemes.

Wolf (2011) fervently endorses good vocational courses but goes on to identify that employers need to be more involved in teaching them, so they are attuned to the real world.

Student views did come through fairly strong in two ways, reflecting in:

- The positive way they valued the engineering diploma itself through the way the course was structured
- The way students understood future employment prospects with the engineering diploma

Almost without exception, students were well motivated by the course structure and related content, such as work experience and practical activities to develop key skills. They clearly felt that gaining the engineering diploma would aid their future university/job/career prospects.

The research provided strong indications that the implementation of work-related learning was primarily a deciding factor when choosing to study the engineering diploma. There is no doubt that work related approaches appeal to students, which is a change from the more traditional GCSE subjects on offer but few of these work-based programs have undergone any thorough evaluation. It is therefore, evident that more evidence is needed to support and help the somewhat negative public image they convey.

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