

Otherness and Belonging

Integration of Practitioner-Academics into an Engineering School at a Research Intensive Institution

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ABSTRACT

Engineering schools in the UK are increasingly adopting learner-centred, authentic learning approaches such as problem and project based learning to address the perceived lack of employability skills in engineering graduates. These methods are labour- and capital-intensive, and these demands for work-ready graduates are taking place in a period of real cuts in per-unit student funding from government. To address these funding gaps, universities are increasingly focussing on securing research funding, leading to a preference for research active academics at the expense of academics with industrial experience. To plug these skills gaps, engineering schools are increasingly reliant on practitioners to teach on industry-focussed talks. However, the integration of practitioners into academic environments has not been smooth. In this paper I adopt a theoretical framework inspired by Bourdieu and Archer to identify the constraints faced by practitioners when they move into academic roles.

Conference Key Areas: Please select three Conference Key Areas

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INTRODUCTION

The introduction of the Research Assessment Exercise (RAE) in 1986, and its subsequent replacement by the Research Excellence Framework (REF) in 2014, has led to an increased preference by UK higher education institutions for research-active academics who meet RAE/REF targets (Harley 2002). Meeting RAE/REF targets is beneficial as it gives institutions increased access to government research funding, and improves their reputational capital, as measured by current academic league tables.

However, the pursuit of RAE/REF targets has led to a fall in the number of engineering academics with the relevant industrial experience necessary for the effective delivery of engineering courses (Alpay and Jones 2012; Graham 2015; Tennant et al. 2015). Engineering schools have attempted to address this shortage of practical engineering skills in their teaching by hiring experienced engineers on teaching-only contracts.

However, the integration of practitioner-academics into engineering schools has not been smooth (Craig et al. 2016).

To overcome shortages of relevant industrial experience, engineering schools are increasingly recruiting industrial practitioners on teaching-only contracts. However, the integration of practitioner-academics into engineering schools is proving to be difficult, primarily because of lack of parity between research and teaching activities within UK universities (Craig et al. 2016).

In this study I adopt Elder-Vass' (2010: pp 113) synthesis of Archer's (2000) and Bourdieu's positions to theorise that the higher education social environment determines the locus of opportunities and possibilities for individuals working within it, and that individuals respond differently to social environment dynamics based partly on their personal dispositions, abilities and capacity to act. Such a position has enabled me to explore the following research question:

What is the role of structure and agency in practitioner-academics' decisions to pursue academic careers, and their subsequent decisions to either stay on in these roles or to quit?

1 METHOD

1.1 Overview

My study focussed on a group of teaching-only academics who had previously worked in industry and were now working in the faculty of engineering of a research intensive institution in the South of England. The institution is a member of the Russell Group of universities, an elite grouping of the UK's research intensive universities. To preserve the anonymity of the research participants, I shall use the pseudonym "the Elite Southern University" to designate the research intensive institution.

1.2 Research participants

The teaching-only academics whom I studied were all at the rank of principal teaching fellow. At the time of the study, the rank of principal teaching fellow was the highest rank that teaching only academics could attain at the institution. I specifically targeted this rank for my research because, compared to the more junior ranks of the teaching-only academic role, individuals at the rank of principal teaching fellow were more established in their academic roles, and because of their seniority, they had more personal experiences of what it takes to progress in a teaching-only academic role at the institution. All of the five research participants were programme directors on one or more undergraduate courses, with primary responsibility for the content and structure of their degree programmes, and for all the teaching on the programme.

To ensure the confidentiality and anonymity of participant data, I closely followed the guidelines from the UK Data Archive. All personal information belonging to participants was stored in a separate location to the interview data and all the data files were password-protected. To keep track of the participants, I used a simple alphanumeric identity code to number the participant as well as to encode their academic career grades. I did this by encoding the principal teaching fellows as PTF1, PTF2, up to PTF5 respectively. At the time of the interviews, the youngest participant, PTF1, was a 33-year-old male, and the oldest participant, PTF4, was a 68-year-old male. The remaining three were all females, with two, PTF2 and PTF3, in the age group 55 to 60, and the last one, PTF5, being in her mid-30s.

1.3 Life history study

In this study I used a life history approach to gain insight into the career histories of the participants. Chase (2007) defines life history as “an extensive autobiographical narrative, in either oral or written form, that covers all or most of a life.”

To gather data from the participants, I used the conversational one-to-one interview style. I adopted this style because it allows interviewees to freely use narrative in their responses (Goodson and Sikes 2001: pp 27). For this method to be effective, I had to allow the participant to narrate their stories as freely as possible, with as few interjections as possible.

2 RESULTS AND ANALYSIS

2.1 Section outline

In this analysis I focus primarily on the self-identities of the research participants and the attitudes that arise out of embracing such identities. I also highlight the impact of the prevailing institutional culture on the two primary activities associated with a university, namely teaching and research. I then draw out the potential outcomes arising out of the clash between the identities held by the research participants and the university institutional culture.

2.2 Practitioner Identity in a Higher Education setting

All the five principal teaching fellows who were interviewed for this study have maintained their identity as professional practitioners. For instance, PTF4, who has carried on working in industry in addition to teaching in the university describes himself as follows:

So if you would like, I have not had an academic career, I have always been somebody from industry that has taught.

PTF1, who is in his early thirties, and who has previously worked in industry as a structural engineer, describes himself as follows:

I am a structural engineer, I am a practising structural engineer, and I am a chartered engineer, and I think when I was at university I had the idea in my head that I could lecture, I would be good at lecturing

Similarly, PTF5, who worked as an archaeologist before joining the Elite Southern University sees herself as an archaeologist.

All the research participants view teaching as an important contribution in developing the next generation of professional practitioners. For instance, PTF5 views her teaching as a means of improving training in surveying, which is an integral part of archaeology:

I suppose what brought me to the Elite Southern University was that in my gut I always wanted to teach surveying, I wanted to teach surveying to archaeologists, I wanted to present it in a kind of logical clear, informative way, because I think, there was, there is still a little bit of a gap there I think in education.

Similarly, PTF4 sees his role at the Elite Southern University as contributing to undergraduate teaching in his area of expertise by “making a combination of academic and practical” teaching to ensure that by the end of the undergraduate programme, students are adequately prepared for careers in his field of practice.

In general, all these teaching-only academics still value engagement with their professional practice. For instance, even though PTF5 is fully employed by the Elite Southern University, she still maintains her engagement with her professional practice:

I have always liked that kind of project work, and I love going to work in different countries ... I think that helps in this line of work as well. so and I think I am very lucky here in that, I still, I keep all my contacts, my links, so I still go and work on projects in Egypt, and I do the GIS and I do surveying, I kind of keep my hand in there as well.

In line with all the other research participants, PTF5 believes that this engagement with her professional practice is of benefit to her teaching:

I think the students quite like knowing that the person teaching them goes out into the field and does stuff. And then with undergraduates, a lot of them will go to work in engineering firms over the summer, and they will be given surveying jobs to do, and they come back in September, and they go, that stuff you that you taught us, we actually had to do it.

Similarly, PTF1 believes that going back and forth between industry and university is good for his teaching:

I need to go back and forth, whether that is a couple days of a week here, a couple of days a week there, whatever it is, I will certainly need to move back, because I don't think I will be as good at what I do, which is teach engineering, unless I am practising it.

It is therefore apparent that all the research participants hold teaching in high regard. Basically, they view it as their duty to train the next generation of professional practitioners, and, from the transcripts, it is clear that some of them willingly took salary cuts to leave industry and work in academia.

2.3 It's all about Research

Given their interest in teaching, all the five research participants report that they experienced what amounted to a cultural shock when they entered the Elite Southern University. They had not anticipated the extent to which research is dominant in the university, and they had not anticipated the extent of marginalisation of the teaching function when compared to research. PTF4, who still works in the construction industry, in addition to teaching three days a week in the institution had this to say:

The external view of the university is that it does teaching. It would expect 90% of its effort to be teaching, and just a bit on research. I think most external people in construction would have no comprehension about the focus on research as opposed to teaching. In fact, they would probably be quite horrified.

Amongst the five participants, the general consensus is that the Elite Southern University is structured primarily to enhance its research capacity. For instance, some participants feel that the primary role for the teaching-only role is to support departmental research, with teaching being only a secondary requirement. For instance, PTF5, who worked in the IT industry before joining the Elite University upon retirement, had this to say:

... the business model is built around top class researchers being attracted in who can produce the highest level of research output and publications, and you put the structure of teaching fellows in place to

help support that happening, you want the highest, high quality teaching, but essentially you want it to sit in its box and deliver so that research can get on with being research. so it's just viewing the, if you like, the state of teaching fellows as a resource that helps you achieve other objectives, and so it's not in itself a, there has been little or no attention until relatively recently to the career development of those individuals because if one left you could get another one.

There are perceptions amongst the research participants that research active academic staff have more opportunities for career progression than non-research active academic staff. For instance, PTF3 suggests that when the teaching-only route was established, it was difficult to get promoted through it:

... so they came up with this teaching fellow - senior teaching fellow-principal teaching fellow route, and it was a struggle to get through it. I was made senior fellow probably on grounds of my longevity of service. I was made principal teaching fellow through the promotions exercise and that was absolutely fine and it was the first time. I had been here for about 18-19 years it was the first time that anybody had recognised the key contributions that teaching was making to this place. And alongside all of that I have done everything that a teaching fellow should do, I have been a keynote speaker at international conferences, I have travelled all over the world, couldn't see you last week because I was in Singapore external examining, and I have produced over 50 books, I have produced loads of conference papers, and loads of teaching initiatives as well.

There is also a perception amongst the teaching-only academics that the current promotion criteria for teaching-only academics are weighted more towards research than to teaching. PTF4 made this observation:

Again somebody else has gone from promotion from a senior teaching fellow to a principal, and part of the requirement is to demonstrate your research record, which seems completely bizarre. The fact they are teaching fellows is they don't bloody do any research, so why when you are looking at promotion in somebody who is teaching only do you have to have a research profile. It's because the Elite Southern University can't divorce the two, and can't value the teaching as highly as the research.

The teaching-only academics also express the feeling that the current promotion criteria are opaque, to the extent that some of those who have successfully applied for promotion are not sure of the reasons for their success. According to PTF2:

... the trouble is promotions are done behind closed doors so the bit that really impresses them you just don't know because you don't get feedback. It's either you get it or you haven't, I think. If you get it they don't tell you why you got it, they just said you got it

This opacity is leading some teaching-only academics to seek promotion through appointment to another teaching-only academic role within the institution, rather than applying for promotion in their own roles. This is what PTF3 had to do:

... that was one of the reason I pushed hard when I got offered this job to go for principal teaching fellow. I felt quite frankly that's the easier option. I think in promotions it's easier to apply for a job and get. I think

I met most of the promotion criteria. I have not come across enough people who have gone through that step to know exactly what's required.

2.4 We are survivors

All the five research participants feel that they are survivors who have worked hard to be where they are, and who still need to continue striving to break down the barriers that the institution, and society at large, has placed against them and others coming from similar backgrounds as them. For instance, regarding her role as a teaching-only academic at the Elite Southern University, and the challenges she is faced with in this role, PTF5 had this to say:

I suppose I don't tend to kind of, I look at what I have done in all my career, I have never kind of sat still and just been like ok, we just carry on. I am always trying to do something else, expanding, sort of challenging the stuff, and then or I do stuff, I take on something new that takes me out of my comfort zone, and then within about 4 weeks I am crying at home saying why did I take myself out of my comfort zone.

In order to gain promotion to principal teaching fellow, PTF1 and PTF5 had to collaborate together to persuade their departmental management, to facilitate their promotion. Explaining how they managed to succeed in a department that was generally hostile to the idea of promotion for teaching-only academics, PTF1 said "... we didn't get where we are by working hard in a corner, and being very quiet about it." Both PTF1 and PTF5 believe that their own efforts to gain career advancement were ultimately beneficial to the entire teaching-only community at the Elite Southern University because, as PTF1 observed:

... the good thing in the Elite Southern University is that once the precedent is broken it's easier to point to it, and so teaching fellows should use it to get that as a way to get where they want, they should point to other examples in other departments and use them.

PTF3 also had to work hard to convince management to facilitate their promotion as well as to secure working conditions for teaching-only academics that were comparable to those of research and teaching academics in their department. Regarding her own promotion, PTF3 stated:

I also approached my head of department about the possibility of making an application for senior promotion based on my teaching and based on my work on the development of teaching and learning, and he laughed and told me that I was basically delusional, and that as an individual with no publications basically what planet are you on?

However, this did not deter PTF3 from seeking promotion. Instead, she sought the support of both the Dean and Vice Dean for Education of the School of Engineering, who in turn persuaded the head of her department to support her application. Commenting on this episode of her career, PTF3 said that she had relied on her previous experience as a marketing and communications expert in the field of IT to come up with a successful strategy for gaining promotion.

PTF3 took up the teaching-only role within the university following retirement from an earlier career. She believes that she is not financially dependent on the university, since she has a paid-up mortgage, and receives a pension from her previous career. She feels that her personal and financial circumstances place her in a strong position

to speak out on behalf of other teaching-only academics who are in less fortunate positions than hers:

I think the majority are not in a position [to speak out]; I suspect the majority are being held because they need the money, they have families, they have mortgages, most of us have to earn a living, we got bills to pay, and we got expenses to pay.

Hence, in a way, this group of senior teaching-only academics see themselves as the pioneers of a new academic role who, collectively, and individually, have to fight with the institution to ensure that conditions of employment improve, both for themselves and other teaching-only academics.

3 CONCLUDING REMARKS

This study reveals that professional practitioners who leave industry to take up academic roles within higher education generally have a high enthusiasm for teaching. Such academics primarily view themselves as professional practitioners who are doing their profession a service by engaging in teaching the next generation of professionals. They are intrinsically motivated to teach. Because they identify themselves as professional practitioners, and because they are in academic role within universities, I have coined the term practitioner-academics to describe them.

However, as the practitioner academics enter the university system, they come up against a formidable adversary. This is none other than the entrenched research culture within higher education. As this study shows, research is the dominant narrative within universities, and it is the prism through which every activity and individual within the university system, particularly research intensive universities, is judged and evaluated.

Even though some practitioner-academics are particularly resilient, as indicated by this sample of practitioner-academics in this study, still there is an experience a binary division between those engaged in research and those who are primarily in the university to teach.

Özbilgin and Woodward (2004) have coined the dual term othering-and-belonging to explain a binary fissure that is experienced by outsiders when they engage with a well-established social system. In this study, practitioner-academics are the outsiders, and their ability to stay on in the university system and make a positive impact on university teaching depends largely on the extent to which the university system is prepared to mitigate the negative impact of its entrenched research culture. This does not mean that research is bad. Rather, this study suggests that universities need to become more inclusive if they are to excel in both research and teaching to the benefit of society.

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