

Educational Researchers in Universities: the condition of the workforce

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ABSTRACT: The British Educational Research Association (BERA) 1997 Presidential Address discusses some issues associated with that part of the workforce in educational research which is employed in universities, including the implications of recommendations in the Dearing Report. Problems are identified in recruiting staff who have appropriate experience and qualifications, at all levels from junior researcher to professor. The reverse side of the systematic problems are those of encouraging and enabling potential and existing staff to pursue successful careers in educational research, especially contract researchers who currently experience precarious careers. Some reference is made to the results of a recent BERA survey, and comparisons are made with the position in other disciplines. Proposals for remedial action, including putting pressure on the responsible agencies, are outlined.

Introduction

It has been an eventful year in education. We have witnessed the election of a new Government committed to the cause of education, an event which has been awaited long in the nation's schools and universities. This has brought fresh personnel, both into government and into quango membership, and new policies are fast emerging. In the universities we have received both the results of a research assessment exercise, and, in July, the first major report on higher education since Robbins. Meanwhile the effectiveness of educational research has continued to be energetically debated.

Given all this excitement it may seem perverse to decide to focus not on the product but on the workforce in educational research. Yet I believe both that this is a serious area of concern for BERA which deserves wider discussion, and that there are implications for it arising from many of the developments to which I have referred, as well as from the recent Concordat agreed between funding agencies and universities.

I will begin with two caveats. First, I am well aware that not all research takes place in universities, but that researchers are employed by other institutions, and that some teachers are involved in action research in schools. I am certainly committed to the notion of a research-based profession to which the Teacher Training Agency (TTA) lend their support. Nevertheless I have concentrated on university-employed researchers not only because this is an area about which I know most but also because I believe that action research has developed out of, and is ultimately dependent on, the healthy position of research in our university education departments.

Second, I have not been able to give a full picture of the situation with regard to educational research, since I have not been able to access all the relevant information. I will therefore fall back on personal experiences more than I would like, but will share them in the belief that they are unlikely to be atypical.

In this address, I will start with some indications of the current systemic problems, and move on to explore possible causes. I will then try to recommend solutions.

The Problems

Problem 1: Shortage of people with appropriate experience and qualifications in some specialisms to be appointable to chairs in education.

I have recently been on the appointing committee for four chairs of education and one readership, all in relatively prestigious universities in which the Schools of Education had research ratings of 4 or more. In four out of these five cases it was not possible to make an appointment since it was deemed that there were either insufficient candidates of the appropriate quality to draw up a shortlist, or because after the interviews it was judged that none of the candidates were appointable. I also know of at least three established chairs of education where the holders are retiring and where it was decided that it was not even worth advertising for a replacement in the same specialism.

These cases cover at least three distinct areas of specialism; however I should make it clear that there are many specialist areas in education in which it is still possible to make good appointments.

Problem 2: Shortage of people with appropriate experience and qualifications in some specialisms to be appointable to established lectureships and to temporary research appointments in university education departments.

The shortage of appropriate applicants is not confined to chairs and readerships in education. I do not have the data to judge how widespread this is, but I and my colleagues also have experience on appointment panels in research-based universities at the lecturer level where because of lack of suitably qualified and experienced candidates, established appointments cannot be made. The posts are sometimes filled on a temporary rather than on a permanent basis, perhaps hoping that the appointee will then acquire en route the qualifications appropriate for the permanent post in a university.

Similarly, there can be difficulties filling research posts. Sometimes these are filled by inappropriately qualified and experienced people simply in order to allow the research to proceed.

So far I have addressed systemic problems which may damage the future of educational research as an academic activity. The other side to these problems, which is perhaps more immediate and closer to the concerns of BERA members, is how they translate into the experiences of individual researchers.

Having just stepped down from serving for 4 years as Head of the School of Education at King's College London, I feel I have gained some experience of the problems of staff at all levels trying to pursue careers which involve educational research. These include:

Problem 1: Those already employed in university departments of education find it difficult to gather the qualifications and experience required to gain promotion to permanent and/or senior university posts.*

Problem 2: Those already employed as full-time researchers find it difficult to plan or sustain a career in research.*

My experiences are at least partially confirmed by the results of a questionnaire study being carried out by Dr Elaine Freedman for the BERA contract researchers group.

Problem 3: It is difficult to start a career in educational research.*

These problems are not all recent ones; for example similar issues were referred to in the report of the Economic and Social Research Council (ESRC) Working Party on the Future of Research in Education (1992), which drew evidence in this area from other sources but especially on commissioned papers by Youngman (1991) on the situations and views of contract researchers, and Ranson (1992) on perceptions from departments of education.

My experience at King's has shown me that the situation in education is broadly similar to that in some other vocational or semi-vocational areas, but for reasons which I will later explore, differs significantly from that in many mainstream academic subjects. I believe that the university system has to face up to this situation, and to consider possible solutions.

Recruitment

In traditional academic disciplines there is a well-trodden route into established posts which allows talented researchers to be selected. For example in subjects such as mathematics or geography, when I chair interview panels for new lecturing posts in King's College, we usually have a choice of many strong candidates who have obtained good first degrees in the subject, have obtained in open competition full-time studentships, often from Research Councils or from the British Academy, have obtained temporary contracts in universities either as post-doctoral researchers or as lecturers, have published several papers and sometimes books, and will clearly contribute to the success of the department in both research and teaching. This is even true in traditional disciplines with research ratings of 3a or 4.

The position however is different in vocational areas; I will take as examples the King's departments of law and nursing, which are both 5-rated and are more closely parallel to education. In law, there are usually two types of applicants: one comes from a traditional academic background with a PhD in law or some related field like criminology, the other is more vocational, with a first class degree in law, often from Oxbridge, a good masters degree, vocational qualifications such as Bar finals, and successful practical experience either as a barrister or in commercial law. While our law department claims to be strictly non-vocational, nevertheless we appoint staff with either vocational or academic backgrounds depending on the specialism required. In nursing, again a 5-rated department, we usually get a field with less distinguished school backgrounds, but with good undergraduate and masters' degrees, and, increasingly, completed or partially completed PhDs.

In education, although we can recruit staff with PhDs in some areas, in the curriculum areas it is difficult even to find someone with distinguished performance in a masters' degree. The route to lectureships in education in universities tends to be mainly from existing teachers in schools, local education authorities or other public sector institutions, who have acquired a masters degree by part-time study and possibly a started or more

rarely a completed PhD. Sometimes they will have been employed on a research or development project, possibly studying concurrently for a higher degree. In other areas of specialism within education, applicants may come from a more traditional route in the foundation disciplines, with for example a first degree in psychology or sociology followed by a PhD in an educationally related area, but not necessarily a teaching qualification. (For example three of the six professors of education at King's are not qualified teachers, although they all highly respected internationally as educational researchers.)

The relative lack of theoretical background and research experience among some education applicants for some posts poses a dilemma. Given that in a research-oriented university the ability of academic staff to conduct research is crucial to their success and to the College's mission, it is difficult to defend appointment to a permanent lectureship of someone whose research is so limited that it is difficult to judge their competence.

One alternative, of offering a temporary appointment with the option of a permanent appointment on obtaining a PhD, would seem appropriate in these circumstances, bearing in mind that this may reduce the field of applications even more, with teachers reluctant to leave permanent posts. However this option puts a considerable burden on a member of staff who is likely in the early years of appointment to feel overloaded with teaching, and in practice gives little advantage to the department.

A second suggestion might be to create teaching-only posts to be filled on temporary contract without any expectation of research. This has some advantages both for the individual, who is not under pressure to research, and for the department which can then apportion a heavier teaching load. The problems are that the member of staff then is effectively cut off from any possibility of following a normal career in either schools or universities, so has no realistic career progression. Another disadvantage is that such posts are likely to be made predominantly in curriculum areas, so may cause a long term fall in activity in areas of research which are most readily applicable and disseminable. Further, the presence of such staff have so far only affected the letter-grade attached to a RAE grading; to avoid the dilemma of which staff to enter to maximise the trade-off between quality and volume in the RAE, the proportion of research-active staff in a department may in future be integrated into the grading itself. This would clearly act as a considerable disincentive to teaching only appointments. Nevertheless I believe that some posts of this nature are useful, especially if seen as a career break for school teachers.

In the future the recruitment position could even deteriorate further. Given the conditions in teaching and the difficulties in recruitment in schools, it would be surprising if the pool of teachers from whom we recruit did not decline in quality.

I believe that the numbers of teachers completing higher degrees has also decreased, partly due to the withdrawal of local education authority support for paying fees and arranging full-time or part-time release, partly due to the enormous within-school pressures of national curriculum and assessment introduction, Ofsted and league tables. While I support the initiatives of the Teacher Training Agency (TTA) to encourage teachers to acquire the new national professional qualifications, we should be aware that these professional qualifications may be gained at the expense of academic study. While hopefully it will be possible to integrate the two, some of the narrow competence work has no place in a Masters' degree. From the point of view of improving their promotion prospects, teachers may be happy to stop when they have gained their professional qualification rather than continuing towards a Masters' degree.

In fact the only positive change is the growth of the EdD degree in many universities, including the Open University, which should increase the potential supply of recruits from schools who already possess doctorates. However once again recruitment from curriculum areas in schools seems to be weak in comparison to management specialisms.

To summarise, most applicants for an established post specialising in the teaching of a particular subject at secondary level will start off with the equivalent of one year's academic study of education including at most a quick introduction to research methods and a minimally supervised small personal research project. In contrast most applicants for lecturing posts in mainstream departments in research-based universities have at least eight years' of study including at least one three year research project and often additional postdoctoral research. Despite this relative lack of experience, I still believe that many education recruits are people with high potential, who are mature and reflective and who can hold their own intellectually with staff from traditional academic departments.

Nevertheless a large proportion of new recruits to Education posts, if they are going to contribute to research at the same level as other academics, need a great deal of time to catch up with scholarship, research skills and research experience. Given the lack of time and money it would not be surprising if universities interested mainly in research performance, given a post-Dearing freedom to recruit, did not make a decision to cut back on the recruitment of poorly qualified education students and poorly qualified education lecturers in order to take better qualified students and lecturers in other areas.

I have considered the difficulties of recruiting lecturers with research experience and competence; there is a similar problem about recruiting contract researchers. At best the choice may be between a good practitioner with a Masters' degree and someone with for example a PhD in educational psychology but little experience of a classroom. In many cases there will only be applicants with lesser qualifications. For example I note that in the survey carried out by Elaine Freedman for the BERA contract researchers' group (BERA, 1997), among a set of researchers with on average over three years experience in the job, 30% have PhDs and 55% have a Masters. This means that somewhere between 15% and 45% of researchers have no postgraduate academic qualification. This represents a drop in the proportion of researchers with doctorates from the 41% in the earlier ESRC study (Youngman, 1991), 20% then had neither masters nor doctorates.

A direct way of improving the situation would be to increase the number of PhDs in Education. I thought it might be worth comparing the situation over PhD support and completions in education and in more mainstream subjects. I have chosen mathematics only because I know that field reasonably well.

	Mathematics	Education
Active researchers in universities (1996 RAE)	1190	2801
Research council PhD studentships - 1995	175	27(+2p/t)
1996	177	31(+1p/t)
PhD completions - 1994/5 (F/T)	64	39
(P/T)	168	131
1995/6 (F/T)	78	32

(Data come from the HESA reports on student numbers for 1994/5 and 1995/6. Unfortunately the data does not indicate the proportion of PhDs completed by students who are overseas based; as a rough guide the figures for full-time students at King's indicate that, in education, 60% are high fee students compared with none in mathematics. Even among low fee students and part-timers, several education PhDs are awarded to those from EU countries like Portugal and Greece.)

This table raises a number of questions. First, it is clear that the ratio of research studentships to active research staff in universities is 15 times higher in mathematics than it is in education. Although one might be able to make some case for a difference arising from the needs of industry, I do not believe a differential of this size can be justified.

No doubt the research councils would justify the discrepancy in regard to the relative demand for studentships. Obviously it is much easier for new graduates in traditional disciplines to survive on a research student grant than for a mature teacher with family responsibilities. Further, the current practice in announcing ESRC studentships in July or August makes it necessary for practising teachers to apply a year in advance in order to be able to give the statutory notice. Secondments from schools are now difficult and re-appointment to school posts of expensive mature teachers is rarely easy. For very good reasons I believe, we do not encourage students with newly acquired BEDs or PGCEs to start research because of the enormous advantage to be gained in educational research from having classroom experience.

However the fact that there is much less difference in the total number of PhD completions in the two subjects than you might expect from the studentship allocation suggests that the demand is not so different, but that education is being proportionately subsidised by part-time students paying their own fees.

Given the shortage of academic staff with PhDs in education, some re-allocation of funds would seem to be in order. For the cost to the state of fees and living expenses for a full-time student of nearly £30 000 over three years, a research council could pay the fees of five part-time students over five years each. Adding in the cost of cover would mean that for the price of a full-time student you would still get 2 part-timers with one term's release or one with one year.

The cost of full release over three years for a teacher or recently recruited university lecturer would be much greater, but you could probably obtain one for the price of six research studentships, which might be a price worth paying.

The diversion of research council studentship funds from mathematics to education might not be easy, given they are administered by two different research councils, but nor is the alternative of convincing universities that they need to invest heavily in academic staff without PhDs in order to bring education rapidly to the level of other departments. If universities do receive any of the post-Dearing additional fees paid by students, one suspects that they are likely to find more pressing needs.

The recommendations of the 1992 report 'Frameworks and priorities for research in education: towards a strategy for the ESRC' include:

To increase the overall numbers of full and part-time Masters and doctoral level awards, as the quality of candidates permits, with a view to maintaining several routes into research positions, giving particular attention to the need to create a cadre of young researchers who have combined their research training with a period of practical experience.

To develop opportunities for mid-career entrants to HE institutions to upgrade their research skills through short-term fellowships and short programmes of intensive research training' (Working party on the future of research in education, p.28)

The first of these proposals has so far had only very modest success, with full-time PhD studentships rising from about 20 to about 30, still very small compared with science subjects, and the introduction of a tiny number of part-time studentships. I would obviously concur with the proposals, except that I am unsure about the value of research training courses without alongside them being able to complete a significant piece of research of your own. I would therefore put emphasis on PhD completion as well as research training. Certainly I believe we should resume pressure on the ESRC to discuss and implement strategies which will assist in filling the gap in the supply of trained researchers available to universities.

Development and Promotion of Staff in Lecturing Posts

The concerns with this broad group of staff are both personal, in supporting staff in their own professional and career development, and simultaneously systemic, attempting to ensure that there is a sufficient supply of staff to provide a strong field from which to appoint people who are expected to provide research leadership in their field.

I will not distinguish between established and temporary appointments, except to note that the insecurities in the latter positions compound other difficulties.

A serious problem experienced by education lecturers and researchers is that of obtaining promotion, especially in competition with staff from other departments in a research-oriented university. The earlier section has suggested the major reason for this, in that new education lecturers commonly start at least five years behind those from traditional subject areas in terms of research and publication.

However it is compounded by two other features. The first is age - not only do education lecturers have to catch up, but being on average more mature on appointment, they also have less time to do it in. This means that there are real problems of telescoping the steps in the ladder for those who are first appointed at ages over 30. If we at King's find gaining deserved promotion in competition with staff from other departments a significant problem in the only 5*-rated education department in a multi-faculty university, I can only assume that others have the same experience.

There is a further feature which causes difficulties, which is that of heavy teaching loads and long terms which make it difficult for staff to sustain their research. In visiting other education departments as external examiner and for peer review, I find that the teaching load is commonly well above that for other departments in the same university. It is of course difficult to compare loads even within the same institution as there are different bases for the calculation, but I would estimate that loads are commonly around 50% higher.

There are several reasons for this discrepancy. One is that education departments do not have a plentiful cheap source of labour in graduate students that other departments have.

A major reason is that I believe that the PGCE (Post Graduate Certificate in Education) course on which many education departments depend for a major teaching resource, is seriously underfunded. Even though we make strenuous attempts at King's to keep the teaching hours within the funds which we receive, we have a constant battle to do so. I suspect that many departments are using the research resource which comes through Higher Education Funding Council (HEFCE) to subsidise the inadequate funding of PGCE through the TTA. This is particularly the case when departments are as now under pressure to improve their provision from constant Ofsted (Office for Standards in Education) visitations.

Sutherland's Report 10 of the Dearing Report (National Committee of Inquiry into Higher Education 1997) deplores some of the Ofsted tactics, and recommends a reduction in the burden of unnecessary administration imposed on education departments by the combination of the TTA, HEFCE and Ofsted. It also notes in regard to funding of initial teacher training:

'The perception on both sides of the (partnership) arrangements is that each is subsidising the other'(para 67)

It is not surprising that Cooper and Lybrand's advice to the TTA which set a common funding formula for teacher training failed to attempt to cost provision; if they had I believe it would have shown that the costings were very much too low. It may also be that where partnerships are functioning well it is possible to cut the costs as the University can reduce its share of responsibility. The Sutherland study thankfully recommends reviewing the costings, which might eventually help to reduce staff loads. Meanwhile I note that our medical school receive 12 times the amount each year to train a doctor that we receive to train a teacher, while the annual cost of a school-based A-level student is 50% more than that for training a teacher on a PGCE course.

A further feature which makes empirical research difficult in education departments is the time of year when staff are able to have research time. Since at King's we are in a Department where all staff are expected to be active researchers and since we receive 40% of our HEFCE/TTA funding for research, we try to make 40% of staff time over a year available for research. I recognise that this is a great luxury in comparison to other institutions. However this is not normally in the form of two days in every week. Inevitably more than half of this time actually falls outside the 36 weeks of termtime so that the proportion of notional research time within the key times when schools are open is quite low. Also we all know the difficulties of keeping even small blocks of research time free of other commitments, especially when involved with students and teachers on professional courses.

Many staff in education departments also carry additional responsibilities resulting from voluntary involvement in activities of service to the teaching profession. These include involvement in professional associations and journals, running workshops for teachers and co-ordinating action research groups, and responding to the plethora of policy documents which emanate from national agencies.

One solution is obviously to ensure that staff have regular sabbatical terms, although in practice it is not always easy to find or to fund replacement teaching when there are few staff in each subject specialism. It may also be worth increasing the research time of staff by employing some contract teaching-only staff to assist with teacher training, although the problems of doing this to any great extent have already been discussed.

The ideal solution, where it is possible, is to arrange for lecturing staff to be seconded to research projects, so that they can concentrate only on research for a significant period, perhaps using the work as the subject of a PhD thesis.

Nevertheless this solution will not be available for all staff without PhDs. I feel that since there is little chance of support from our cash-starved universities we should, as proposed in the previous section, look to the ESRC, who have a brief for maintaining the supply of trained researchers, to expand their funding of periods of release for existing lecturers.

I put a high priority on gaining a PhD, both because it is the best form of research training, and because it represents a substantial piece of work which can form the basis of significant publications; indeed it is probably the most substantial piece of work staff will ever undertake. If not essential it is at least highly desirable as a preparation for supervision of research and research students, and it enables education staff to gain the respect of academics in other departments. The EdD has some attractions with its more structured elements, but has the disadvantage of reducing the scope, if not the depth, of the research component.

While in general I welcome the regulations which allow PhD by publications, which makes the task easier, I am concerned by the quality of some of the entries, in particular in those universities which provide minimal supervision for their own staff.

It is clear from Report 3 of the Dearing Report, 'Academic staff in higher education: their experiences and expectations' that the frustration over finding time to carry out research is universally shared. Across all departments, lecturers claim that they spend on average 10% of their time on research, and that for 60% of staff, research is almost always done in their own time outside normal working hours (Table 3.2). The main obstacle to doing research is perceived by 65% of lecturers to be lack of time (Table 3.5b).

As far as education is concerned, the future in terms of available time for lecturers is definitely gloomy. The Higher Education Funding Council (HEFCE) funding unit for educational research in universities has been reduced by 23% because of a re-classification by HEFCE; whereas it used to have the second lowest out of 4 ratings it has now after consultation been removed from the category of 'technical, experimental or practice-based' into the lowest 'other' category. It is not clear why education is not regarded as 'practice-based', especially as pure mathematics is included in this category. This decision would seem to reflect both historical funding and academic status rather than careful estimation of costs. Reducing the research funding to that of a 'library-based' subject will hardly help to solve the perceived problem identified by David Hargreaves (e.g. Hargreaves, 1995) and others that there is too little 'applied and evidence-based' research in education.

Further reductions in the total HEFCE funding for educational research are also likely due to a lower distribution of quality ratings in relation to those in other subjects compared with the 1992 RAE, and a lower volume factor due to reduction of staff numbers in education. Initial teacher training courses are one of the few areas in universities where

targets have consistently not been met over recent years; currently recruitment and hence funding is 20% below target nationally in all the areas of secondary shortage. Unless the TTA manages to exact Government agreement to paying PGCE and fourth year undergraduate education students a small notional salary in training, the imposition of fee-paying in universities will further decrease teacher recruitment, and hence staff numbers and resulting research funding. However it should be noted that the number of research-active staff in education is currently substantially larger than in any other subject, and represents 20% of all active researchers in universities.

There is a possible chink in the gloom; HEFCE have implied that they are considering introducing a 'policy factor' into the calculations which will reward areas of both national need and international standing. Provided we can raise the profile of the usefulness of educational research, we should have some powerful arguments in both of these areas.

All these changes are likely to put greater pressure on staff; creative and focused use of what funding is available will be needed to protect the best quality research which is now happening, and allow talented individual researchers now employed in lecturing posts in universities to gain the promotion that is due. Otherwise the dearth of good applicants for some chairs in education will be exacerbated.

Sustaining Careers in Contract Research

One possible source of Professors of Education is from those who have had substantial periods as contract researchers. Report 3 in the Dearing Report (Table 5.2) suggests that 38% of professors across all disciplines have spent some time on short term contracts of some sort, and that of these the average fraction of their university career that such employment has occupied is one-third. There are indeed a few examples of contract researchers moving directly into chairs in education, for example Wynne Harlen and Kath Hart. Both of these were fortunate in experiencing at least one five-year source of funding, although even so they found a career in contract research precarious.

If anything this route to seniority has probably become more difficult due to the increasing tendency to favour short research contracts. For example the Nuffield Foundation has in the past given longer term educational research grants, but now generally requires proposals to be under £50 000. This sum, as with the ceiling for the ESRC grants which favour new postdoctoral directors, limits a project effectively to 1 person-year. There is a perception that ESRC proposals funded over two years have a greater chance of success in the funding round than those over three years, although this may reflect only caution in a situation in which the competition is forever keener.

The government agencies, such as the Teacher Training Agency (TTA) and the School Curriculum and Assessment Authority (SCAA), recently merged with the National Council for Vocational Qualifications (NCVQ) to become the Qualifications and Curriculum Authority (QCA), have also tended to favour small focused projects on tight timescales in place of the earlier large-scale national assessment and curriculum projects.

Some of the recent projects at King's, which are quoted by Hargreaves (1997) as good examples of 'evidence-based research' have designed, piloted and disseminated teaching materials and evaluated the effect on GCSE results. This has required long term programmes and hence constant problems in collecting together enough from different

funders to keep a researcher in post; one such current project, Cognitive Acceleration in Mathematics Education (CAME) has had five different funding sources over five years.

Spreading money more thinly in more smaller grants has some good effects, for example it allows more people and more institutions to gain funding. Because in many cases institutions find themselves subsidising short projects, they also appear to give good value for money. However there is a significant downside:

- As our experience shows it makes the type of rigorous evidence-based research on effective practice, requested by the many critics of educational research quoted earlier, much more difficult to fund.
- The constant writing of proposals distracts both senior academics and researchers from actually doing research. The current proportion of alpha-rated proposals which are funded by the ESRC is 25%, but it has been even lower than this. Even a researcher with a good record of getting proposals funded is unlikely to be successful on more than 50% of occasions, which still leaves a constant dilemma as to how to balance time between proposal writing and research reporting. A recent editorial in this journal suggests that the accumulated time in different institutions spent in the bidding process can easily be worth more than the sum available, so that the grant is a net charge on the research community (Stronach et al., 1997).
- The constant uncertainty about future funding drives away many first class contract researchers into safer and securer posts, often outside research. We at King's have lost two excellent researchers this year for this reason. There comes a limit to the amount of insecurity people can tolerate, especially when they are mature people with families and London-size mortgages.

I should acknowledge that we have been very fortunate at King's to have just won a five-year grant from the Leverhulme Trust for a programme to investigate and attempt to eradicate Low Achievement in Numeracy. I obviously congratulate the Leverhulme Trustees and their advisers in authorising a major long-term grant which will avoid the downsides referred to above and will allow a coherent but wide-ranging attack on the problem. However I am well aware that researchers in other institutions must have been very disappointed when the result was announced. Two of our three named researchers heard that they had five years of funding just one month before their final contracts were about to expire, and in the third case the researcher had returned to supply teaching for eight months after the end of the last contract. All three have experienced more than five years of living uncertainly on short term contracts.

Without major initiatives such as this, a PhD degree affords the only possibility of sustained work on a problem. It is ironic that the ESRC generally offers PhD students longer contracts than postdoctoral researchers, although the price is having to survive on a minimal grant.

It is significant that no ESRC Research Centre, which would provide secure long-term funding, has recently been funded in an education department,.

I am quite clear about the effectiveness of longer term funding in enhancing the quality of research. Two five year projects with which I have been involved, Concepts in Secondary Mathematics and Science (CSMS), funded by the Social Science Research Council in the

1970s, and Graded Assessment in Mathematics (GAIM), funded jointly by Nuffield and the Inner London Education Authority, have I believe been effective in changing people's thinking about learning as well as in affecting practice in classrooms throughout the country. Other substantial projects with large teams such as the Assessment of Performance Unit work in Science, the '15000 hours' work launching the school effectiveness developments and the Evaluation of Records of Achievement (PRAISE) could make similar claims of influence. In all these cases members of the original teams have gone on to become professors and leading researchers, including three presidents of BERA and the Director of the London Institute of Education.

Thus there seems to be evidence that more generously funded projects nurture theoretical advances, produce significant influence on the education system, and breed world-class researchers.

There is at least now some initial signs that the problems of short term research contracts and their effects on the quality of both research and researchers' careers are being recognised. The Concordat between Universities and Research Councils concerned with improving careers management of researchers has been launched. Although this actually provides evidence of good intention rather than very much improvement in circumstances, at least it gives researchers a lever to use against those that might deny them some basic rights.

The BERA Contract Researchers' Group is carrying out their own monitoring and has completed the analysis of a questionnaire to a large proportion of contract researchers in Education Departments. The results so far are not particularly encouraging, for example suggesting that only 55% of researchers have even seen a copy of the Concordat. BERA intends to use the result of this survey to stimulate action by Heads of Schools of Education to ensure that researchers are at least aware of their rights, and that they acquire higher status and fulfil a more satisfactory role in Departments. Although the majority of the BERA sample were on contracts lasting less than two years, the average length of career as a contract researcher was over three years, suggesting that many researchers had been in an establishment long enough to play a significant part, contributing to teaching and in some cases to research student supervision. We look forward to circulating copies of this report, and to forwarding it to those charged with evaluating the implementation of the Concordat.

However the main value of the Concordat may not be in the little it promises but in bringing the problem to everyone's attention. For example in Chapter 11 of the Dearing Report, four roles are given for research in universities, of which the final one is:

- *to create an environment in which researchers can be encouraged and given a high level of training. (11.2)*

A little later it is noted that:

'(The dual support system) has led to an increasing number of researchers on short term contracts,...many of whom are reported to be in circumstances which are financially straitened and insecure.' (11.15)

In relation to this it is worth noting that the BERA survey suggests that only 23% of the contract researchers were on grade II (equivalent to the higher part of the lecturer scale) and only 2% on grade III (equivalent to senior lecturer/reader). 36% were on the relatively

low grade IA. Although it is impossible to know whether these scales were appropriate, it does suggest that in general educational researchers are not generously paid, especially considering their insecure terms of employment.

However having described the problem the Dearing report does not seem to do much to solve it. Much of the new funding sought for research is for 'infrastructure' (i.e. equipment, buildings and libraries) and indirect costs, presumably reflecting the strong 'big science' and university management representation on his committee.

The relevant recommendations are as follows:

Career structures for researchers(11.91-11.94)

'Until recently, relatively little attention was paid to specific career development for postdoctoral workers...We believe that training programmes using a series of postdoctoral positions in high quality research departments are appropriate...This will equip postdoctorate researchers for careers as researchers in industry or higher education institutions, or as higher education teachers of quality.'(11.92)

The report notes the existence of a Select Committee review of academic research careers for graduate scientists, *'...which concluded that there was a major problem arising from the increase in number of researchers on short term contracts'* (House of Lords, 1996).

Use of short term contracts for academic staff (14.32-14.34)

Having registered the expectation that the proportion of staff on such contracts will increase (14.12), the downside of discontinuity to the system is discussed in terms of inefficiencies in research and detrimental effect on the quality of teaching. In personal terms, *'Career planning is difficult and the uncertainty may act as a disincentive for people to enter the profession, or remain in it...'*(14.32) Nevertheless the benefits *'for both sides'* are welcomed. The nature of these benefits for individual researchers is not spelled out, but the flexibility for institutions is seen as important (14.33). Some confidence is placed in the Concordat:

'Arrangements such as the Concordatshould help alleviate past problems. After a reasonable period of experience, the CVCP and the Research Councils will need to review its effectiveness...For more senior level posts, the Research Councils might consider earmarking certain funding to be distributed on a competitive basis to inter-departmental groups to fund specific individuals for their research careers. This funding would not be indefinite, but would be sufficiently long term to retain talented individuals.'(14.34)

As with much of the Dearing report, these paragraphs seem to be seriously short on solutions to diagnosed problems reflecting mainly the conditions in science, where Research Councils and bodies such as the Royal Society are more able to provide support for individual researchers.

I can only see two solutions to the problem of improving the conditions of work for contract researchers. One I have referred to already, which is to encourage research funders to give larger proportions of their money to longer projects with larger teams, although certainly not to starve completely the smaller projects directed by more junior staff.

The second solution would simply give more money to universities to pass onto departments where there are larger numbers of researchers, by increasing the load factor

for contract researchers in the funding formula. This could then be expected to be used to provide bridging funds, sabbaticals, training and higher degree fees for contract researchers. In the School of Education at King's we can at most afford to support between one and two research staff in bridging periods at any particular time out of our HEFCE research funding. More than this would compromise even more the research time made available to other staff. However this does not seem very much on an establishment of 25 in a top-rated research department, and the position will not have improved on 5* rather than 5 rating.

BERA, intends to discuss with Heads of School what can be done within the present structure and what needs to be done to improve the situation of contract researchers. It is essential to encourage research careers, and where appropriate to improve the flow of recruitment of researchers to academic positions at all levels, including professorial posts.

Conclusion

In this paper I have discussed some current problems associated with that section of the workforce in educational research which is based in universities. These relate to the current problems of recruiting staff at all levels from junior researcher to professor who have experience and qualifications appropriate for posts in research-based universities. The reverse side of the systemic problem is that of encouraging and enabling potential and current staff at all levels to pursue successful careers in educational research, especially contract researchers who currently experience precarious careers.

It is clear from this analysis that some aspects of the shortage are likely in the immediate future to become worse rather than better.

It is idle to pretend that these problems are easily solved in a short time scale, or that anyone other than us will be very concerned about solving them. Education departments in universities have more enemies than friends for a variety of reasons, not all of which are honourable.

I believe that there are however many things we can do in the short term to improve prospects. Where there are bodies who have responsibility for the situation, we should harass them to ensure that they fulfil their responsibilities to educational research. I include especially HEFCE, the CVCP and the ESRC. The Council of BERA has plans for meetings with these three bodies.

Individual Schools and Departments of Education need to ensure that they are doing what they can within their own structures to look after the pool from which they recruit, and to develop their own staff. Implementation of the Concordat for contract researchers would be a start, but we should be able to go beyond this basic level. In particular Heads of School should explain to the TTA and Ofsted that in order to protect research they can only provide the teaching they are paid for, and use the CVCP to back them up where necessary.

We all need to take responsibility for raising the profile of educational research and ensuring that it is seen not as a 'trivial pursuit', but as delivering high quality products which, while not necessarily offering 'quick fixes', are often useful to policymakers and practitioners within the educational system. In the long term this is the most powerful way of reducing the threats to our future.

We also need to celebrate the good things. Professor Michael Barber, a key figure in advising the government, at the BERA 1997 annual conference expressed his intention to work with BERA members and proposed ways of ensuring that the expertise and knowledge of educational researchers are fed into government policymaking. While justified critical comment will always be an important function of academia, I believe we should accept his invitation to do what we can to assist this government in its mission to genuinely improve educational standards.

The Sutherland Annex to the Dearing Report has demonstrated understanding of and willingness to solve some of the problems of teacher training in universities, and has endorsed the important role of universities in feeding in knowledge of research and research methodology to all levels of teacher development. The TTA too, after a weak start, are working to improve their relationship with us and increasingly appreciate the significance of our contribution to their aim of creating a research-based teaching profession.

Of particular cheer was the fact that the main Dearing Report has endorsed a view of research in universities which is by no means as narrowly utilitarian as we might have anticipated, expressing four main roles for university research which I think are worth quoting in full:

- *to add to the sum of human knowledge and understanding;*
- *to inform and enhance teaching;*
- *to generate useful knowledge and inventions in support of wealth creation and an improved quality of life;*
- *to create an environment in which researchers can be encouraged and given a high level of training. (11.2)*

I believe we should acclaim the national re-assertion of research values represented by this statement and use them as a template against which our own performance can be measured.

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