

## **WHY WE ARE STILL TEACHING: A SMALL-SCALE STUDY OF MATHEMATICS TEACHER RETENTION**

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*This paper reports on a small-scale study of ex-students from a PGCE course and the progress of their teaching careers. Contact was made with ex-students from seven cohorts, going back as far as 1976 and respondents were asked to complete a questionnaire. It explored their reasons for either remaining in teaching (e.g. working with children) or leaving (e.g. workload). This paper suggests areas in which progress is being made in retention (e.g. pay and conditions).*

### **INTRODUCTION**

For several years the TDA (previously TTA) has been addressing the related issues of *teacher recruitment* and *teacher retention*. In 2002 we decided to explore the issue of retention, i.e. teachers' decisions about staying in the teaching profession. We developed this study further in 2005.

Teacher retention has been an issue in a number of countries for many years. The NFER teacher survey, undertaken for the GTCE, identifies key factors which teachers enjoy about teaching, the main one being the satisfaction of helping children academically and personally (NFER, 2005). They also report the frustrations:

'The main frustrations of teaching, as reported by teachers, are insufficient time to plan and prepare, a lack of work/life balance, the amount of paperwork and the poor behaviour of some pupils.' (NFER, 2005)

The issues of working conditions and teacher salaries are often cited as negative factors (Lambert, 2006). In Australia, 8 stages of a teacher's career were identified, including the movement from 'Career entry: reality shock – survival and discovery' to 'Stabilisation: developing commitment' (Schools Council, 1990, quoted in Manuel, 2003, p. 143).

'Stayers, leavers, lovers, and dreamers' an editorial by Marilyn Cochrane-Smith in the Journal of Teacher Education (Cochrane-Smith, 2004) reviews several studies of teacher retention in the USA. The title of the piece reflects some of the reasons teachers stay: their 'love' for the students they work with and their 'dreams' of making a difference in students' lives. One of these studies also highlighted reasons teachers leave, including 'low salaries, student discipline problems, lack of support and little opportunity to participate in decision making' (Ingersoll, cited in Cochrane-Smith, 2004, p. 388)

### **METHODOLOGY**

The study has been undertaken in two parts. The first stage was an investigation of

three cohorts of ex-students, from 1999, 1996 and 1991. We surveyed all the ex-Bristol PGCE mathematics students whom we could track down from these groups. We received 17 responses to our questionnaire and then we also interviewed two, both of whom were heads of department in local schools. The findings from this part of the project were reported at an Open University conference on teacher recruitment and retention in January 2003 (Brown and Winter, 2003). They largely reflected those reported on the previous page in the NFER survey. We then decided to extend the survey to earlier groups and so contacted ex-students from a further four cohorts, from 1987, 1983, 1980 and 1976, as well as obtaining additional responses from the first three cohorts. Altogether we received responses from a total of 48 ex-students. Of these nine had left teaching. This should not be taken as statistically meaningful in that it was obviously easier to find ex-students who are still teaching. Our aim was to take a positive view of the issue – why do teachers **stay** in teaching, rather than why do they leave.

We extracted comments from the questionnaires, categorising them into broad areas. This was largely qualitative data and the data set was not of a sufficient size for statistical examination, but clear themes emerged from our examination of the responses. We recognise that others, from their past experiences, would have identified different categories. For instance, one participant at the BSRLM day conference, began by looking for instances of the word ‘mathematics’ and found none. Some of these themes changed between the first and second phase responses and these points are outlined below.

## **SOME KEY POINTS FROM THE DATA**

### **All questionnaires:**

<p>Good things about teaching:</p> <ul style="list-style-type: none"> <li>•1 Aspects of working with children, and the rewards, were key for most respondents – including those who had left teaching. This was the most frequently mentioned factor for both groups.</li> <li>•2 Intrinsic interest and variety in the job was important for those who stayed – but not mentioned by any leavers.</li> <li>•3 Intellectual challenge was important for those who stayed – but mentioned by only one leaver.</li> <li>•4 Working with interesting and supportive colleagues was mentioned by about a third of all respondents – an equal</li> </ul>	<p>Bad things about teaching:</p> <p>This was a much more diverse set of responses with few key features common to large numbers. Only three were mentioned by a reasonable number of respondents:</p> <ol style="list-style-type: none"> <li>1. Unmotivated pupils or poor behaviour – mentioned by more than half of leavers and more than a quarter of stayers.</li> <li>2. The amount of paperwork was mentioned by about a third of stayers and 2 (a quarter) of leavers.</li> <li>3. Workload out of school hours was mentioned by more than half of leavers, but only a sixth of stayers.</li> </ol> <p>Other factors were all smaller scale than these three, but the following were mentioned by a</p>
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<p>proportion from both groups.</p> <ul style="list-style-type: none"> <li>•5 The enjoyment of seeing pupils understand new ideas was important to both groups – and was mentioned by a higher percentage of leavers than stayers.</li> <li>•6 Good holidays were important for those who stayed (although many added that they needed them) but were not mentioned by leavers.</li> <li>•7 More than half of leavers said they had enjoyed planning lessons – no stayers mentioned this.</li> </ul>	<p>few:</p> <ul style="list-style-type: none"> <li>• Lack of resources,</li> <li>• Teaching and managing coursework,</li> <li>• ‘Irrelevant’ tasks,</li> <li>• Ofsted and associated stress,</li> <li>• Unsupportive parents,</li> <li>• National exams.</li> </ul>
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Responses to the ‘bad things’ question (see above) were much more at a level of individual detail, so more difficult to categorise. They seemed to reflect individuals’ circumstances more than ‘the bigger picture’. One third of original questionnaire respondents mentioned inadequate time for preparation and development of teaching – but this was only mentioned by one ‘second round’ stayer. Perhaps this has improved? Similarly, more ‘first round’ respondents mentioned pay/status. Again, this may have improved.

Future career plans – five years time:

- 1 Most teachers felt they would still be teaching, either in the same job or promoted.
- 2 About a sixth thought they might not be teaching, some combining this with plans for childcare.
- 3 Of leavers, a third (3) thought they might return to teaching.

About two thirds of stayers said they had considered leaving teaching at some point, for a range of reasons including the pressure of the job (but this was reduced in the second round responses), feeling undervalued, frustration with ‘the system’ and excessive workload. Their reasons for staying included enjoying it on balance, needing the salary, being refreshed after a break or taking up new opportunities and not yet having made the move.

Since the study was conducted, one of the ‘leavers’ has actually returned to teaching, in a senior post, and has commented to us that his experience outside teaching (working in educational statistics) has enabled him to bring a new perspective to his work in school.

### Questions specific to leavers:

<p>Reasons for leaving:</p> <ul style="list-style-type: none"> <li>•1 More than half mentioned a specific interest they wanted to follow up.</li> <li>•2 Others mentioned family reasons,</li> </ul>	<p>Links between teaching and current job:</p> <ul style="list-style-type: none"> <li>•1 Almost all had moved into a job closely related to teaching, or still in an educational context.</li> </ul>
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<p>connected with time pressures.</p> <ul style="list-style-type: none"> <li>•3 Some progressed into related jobs.</li> </ul> <p>Only three mentioned any regrets about leaving teaching.</p>	<ul style="list-style-type: none"> <li>•2 About half still do some teaching in a different setting.</li> </ul> <p>Others mentioned some generic skills which have continued to be useful – organisation, communication, hard work and ‘people skills’.</p>
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### **Second round questionnaires only:**

In these questionnaires we asked a few extra questions, including the following:

<p>Most valued professional development:</p> <ul style="list-style-type: none"> <li>•1 The most common response was to mention a specific training event on a particular topic.</li> <li>•2 Second to this was sharing experiences with colleagues</li> <li>•3 Working with PGCE students and/or presenting training themselves was mentioned by about a quarter.</li> <li>•4 Other popular activities included school run session with colleagues, mutual lesson observations and reflection on one’s own teaching.</li> </ul>
<p>Advice to a graduate considering teaching:</p> <ul style="list-style-type: none"> <li>•1 The most popular response was some variation on ‘try it – it’s rewarding’. This was from both stayers and leavers.</li> <li>•2 Others tempered this with a warning to be prepared for hard work – this was more prevalent among leavers.</li> <li>•3 Some advised that it would get easier over time – this was more common from stayers.</li> <li>•4 Leavers often advised exploring teaching first by observations in school.</li> <li>•5 Leavers also advised taking advantage of the opportunities teaching offers, such as teaching overseas or extra-curricular activities with pupils.</li> </ul>

## **DISCUSSION**

We called our paper reporting on the first study ‘Beyond the breaking waves’ as it seemed to us that one factor was that of getting enough experience ‘under one’s belt’ to have the confidence to make one’s own decisions about how to prioritise parts of the job rather than be constantly ‘hit’ by new demands. This seemed to take about five years – if teachers stayed that long, they often stayed for many more years.

Now that we have extended the study into earlier years, we continue to see this effect. As teachers gain experience they, unsurprisingly, become more confident to set their own agendas for their work. They also become more ‘hooked into’ the work through dependence on their salaries and through their personal commitments (families and mortgages) so that they are less flexible and cannot afford career changes and the accompanying salary drops. These two factors mean that those who have made it ‘beyond the breaking waves’ are more prepared to accept and work on the factors

they don't like about teaching, while staying in the job.

Poor pupil behaviour and motivation, cited as an issue by Manuel (2003, p147) for teachers in the early parts of their careers and mentioned in the NFER teacher survey (NFER, 2005), was one of the important factors for our respondents. The point made by Manuel about the importance of support during this key time, when teachers could be moving into the 'Commitment' phase of their careers, was not specifically mentioned by our respondents. Manuel's study mirrors ours in many of the positive factors identified by teachers who stay including: effective pre-service education, participation in collaborative groups such as support networks and professional associations, opportunities for promotion, financial need and a 'gritty determination' to see through one's ideals (Manuel, 2003, p148)

Intellectual challenge was mentioned by a greater number of respondents in the second phase of the survey, perhaps indicating that this is a factor which increases with experience (as this phase took views from those who had been in teaching for longer) and with confidence in one's own practice.

An important issue emerging from the two phases of the study is that there do seem to be changes in teachers' experiences in recent years which they see as improvements to the job and therefore as encouragements to stay. The recent workload initiatives of the government do seem to be impacting on teachers' experiences positively. Two areas in which improvements seemed to have occurred are time for preparation and planning and teachers' pay/status. Both are areas which have received government attention in recent years which is perhaps proving successful. The vacancy rate for secondary mathematics teachers, down from 2.1% in 2001 to 1.0% in 2006 [1] (DfES, 2006) would seem to reflect this improvement, although clearly there are many factors underlying these figures which would need deeper examination. However, it is interesting to note that the NFER teacher survey does not yet seem to reflect these improvements (NFER, 2005).

The fact that many of the 'leavers' had not in fact left education is an important finding. Most were still engaged in related work, including one in Teacher Education (Jan Winter!). Indeed, a US study suggests:

'...we may need an expanded notion of retention that recognises the migration to leadership roles not as failure to retain but as an appropriate career path for some...'(Teacher Education Program Research Group, UCLA cited by Cochrane-Smith, 2004, p390)

The teachers surveyed were all ones who had received their Initial Teacher Education via the University of Bristol PGCE course, and therefore knew the institution and in some cases, the researchers. It may therefore be that there were some 'local issues' regarding the particular training they received. As Stokking *et al.* comment, a 'thorough and realistic preparation' for teaching may help reduce negative impacts of 'practice shock' so that teachers are more likely to stay through their early years of teaching (Stokking *et al.*, 2003, p331). Some respondents' comments indicated they

felt they had experienced this. It may also be that their responses were phrased more positively because of their previous, and in some cases ongoing, relationships with us.

It is important to reassert that this study is small scale and that the findings may not be statistically significant on the large scale. However, it does provide some evidence that teachers of mathematics do enjoy their work and that those who stay have strategies for 'maximising the positive'.

## NOTES

1. Vacancies as a percentage of teachers in post. In both years quoted, the vacancy rate for teachers of mathematics was about 1/3 higher than the overall vacancy rate. The figure for 2001 was a high point in the data, with vacancy rates from 1997 building to 2.1% in 2001 and decreasing since then.

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