

## **Rethinking partnership in initial teacher education and developing professional identities for a new subject specialist team which includes a joint school-university appointment: A case study in mathematics**

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In a time of rapid and extensive change in initial teacher education policy, a new team of mathematics educators is establishing at the University of Manchester. How does a new team of mathematics educators (some with experience of other institutions) establish itself and ensure that previous strengths and successes are maintained and developed? One member of the team is a joint school-university appointment. What are the affordances of a joint school-university appointment? What are the personal challenges for the appointee and colleagues working with the appointee – in school and in university? Evidence for the paper is through personal reflective accounts, focus group discussions with school and university colleagues, an anonymous questionnaire of student teachers and their course outcomes. The outcomes of this early experience have implications for the developing practice of the University of Manchester PGCE mathematics team and the way in which university and school based colleagues work together to optimise learning for beginning teachers, as new models of ITE are adopted within a well-established partnership. These implications may provide areas for consideration by institutions rethinking partnership in initial teacher education.

**Keywords: initial teacher education, partnership, secondary mathematics**

### **Introduction**

In the rapidly changing landscape of initial teacher education in England following the change of government in 2010, the need to appoint a new team of mathematics educators presented both challenges and opportunities. Alongside experienced mathematics educators, the university worked with one of its partnership schools in the vanguard of Teaching Schools to make a joint appointment. An experienced teacher and former National Strategies consultant, the appointee brought complementary strengths to the university tutor team.

Conscious that this was a novel situation, the team determined to investigate the impact on student outcomes and their emerging professional identities. We adopted a case study approach (Wellington 2000) using mixed methods: student questionnaire and summative attainment data, focus group and one to one interviews and tutors' reflective diaries, with a view to providing a rich evidence base. The principal aim was to ensure that the quality of the provision was maintained, whilst enhancing learning of tutors, teachers/mentors and student teachers through the opportunities of the new arrangements. Through exploring this novel context we hoped to be able to identify priorities for our future development and provide a case which others might find a valuable reference point when considering ways of developing their initial teacher education provision.

## National Context

When the coalition government came to power in 2010 it set out its agenda for education in England in the white paper *The Importance of Teaching* (Department for Education (DfE) 2010). A principle aim was to put more teacher training into schools. At the same time Ofsted (2010) reported that the best quality and value for money initial teacher training (ITT) was higher education institution (HEI) led. HEI courses, whatever their duration, have a substantial school element (24 weeks for secondary and 18 weeks for primary) and guaranteed teaching experience in at least two contrasting schools. As well as ensuring students meet expectations for teaching they include academic study which results in a qualification which enables teachers to work in other countries as well as England.

School based routes into teaching have existed for several years and the aspiration to have all ITT in schools is not a new one. Anthea Millett as the chief executive of the Teacher Training Agency, a non-departmental government body with responsibility for teacher recruitment and training, (1995-1999) was also very keen on moving ITT into schools. Despite preferential funding and a lighter touch inspection regime, the graduate teacher training programme (GTP) and school based ITT consortia (SCITTs) provides just one in five of all new teachers (Smithers and Robinson 2011). Evidence from Ofsted (2010, 2012) is clear that the quality of school based ITT is far more variable and it is less cost effective. Often schools take on trainees with the hope of alleviating staffing shortages. Consequently trainees find themselves with substantial teaching responsibilities and the emphasis is on survival, as opposed to development as critically reflective practitioners with an understanding of how young people learn and develop, particularly in the context of their specialist area (primary or a subject at secondary).

In 2003, based on a scheme in USA (Teach for America), Teach First brought 200 graduates with firsts or upper class seconds into teaching for two years. In 2010 the numbers had increased to 500. Teach First participants have six weeks training and then work in challenging inner city schools with high proportions of disadvantaged youngsters that traditionally struggle to recruit and retain staff. Teach First recruits high performing graduates who can become teachers of secondary mathematics with just grade B at A level (Teach First 2012). There is on-going support for Teach First trainees throughout the first year, but the assumption is that subject specific development happens largely in school. This is unlikely to happen as Teach First participants are likely to be working in schools with a shortage of subject specialists, indeed subject specific pedagogy is identified by Ofsted as an area for improvement (Teach First 2012). The current secretary of state is a strong proponent of Teach First (DfE 2010) and further expansion of the scheme has recently been announced (DfE 2012a).

For a mathematics PGCE course (the most popular route into teaching) half a degree or equivalent in mathematics is usually required. Six- or nine-month subject knowledge enhancement courses enable suitable candidates with an A level and relatively little undergraduate experience to develop their knowledge and understanding of their chosen specialism. In July 2012 the Secretary of State announced that schools could employ whoever they wanted as teachers (DfE 2012b). Whilst this has always been possible, schools have usually used the untrained teacher/instructor pay scale rather than paying a qualified teacher salary. Teach First and the July announcement seem to contradict the government's espoused commitment to teacher subject expertise. From September 2012, all student teachers

will have to pay £9000 fees for the PGCE course and there will be differentiated bursaries dependent on degree classification. It is too early to say what impact these changes will have, however many colleagues have expressed concerns (e.g. Association for Language Learning (ALL) 2012).

The white paper (DfE 2010) also introduced Teaching Schools to be akin to Teaching hospitals. Teaching Schools are expected to take a lead in both initial teacher education and professional development for a group of local schools, typically both primary and secondary. They are expected to work with at least one local university ITT provider in developing their provision. School Direct has been introduced as a new route into teaching, where aspirant teachers are recruited and trained by the Teaching School and its partner schools, with variable levels of university input. School Direct (salaried) replaces GTP (Teaching Agency 2012)

This new model, with schools taking a larger share of responsibility for ITT creates the potential for a new type of professional who is both a teacher and an academic, somebody who occupies a third space. A third space is a “territory between academic and professional domains, which is colonised primarily by less bounded forms of professional” (Whitchurch 2008, 377).

### **The particular context**

The University of Manchester Postgraduate Certificate of Education (PGCE) programme is well established and well regarded. It has consistently been graded Outstanding since inspection of initial teacher education was introduced in 2002. The programme has a strong partnership with a substantial core of schools and colleges that have worked with the University over many years. Many mentors completed their PGCE at the University. The entire mathematics course team was renewed during the 2011-12 academic year, following a long period of stable staffing. Alongside two academics with experience in other universities, a joint university/school appointment was made. The school is a long established partner with the University and was one of the first Teaching Schools.

The overriding concern of the team was to ensure that all student teachers were supported and challenged to be as successful as possible both in school and academically and that standards were maintained. The PGCE requires students to complete six Masters level assignments and four individual study packs.

All students have weekly meetings with their mentors, and termly school visits by their tutors where the tutor, mentor and student teacher discuss progress and agree targets, and termly tutorials. Tutors are expected to quality assure the school placement and moderate mentors’ judgements about progress during these visits. Students also receive support and feedback from tutors on their preparation for school, files and academic assignments; when necessary additional school visits and tutorials are provided.

The mathematics education tutors contribute to all aspects of the PGCE programme, recruitment and selection, mentor training and update sessions. Tutors also run seminar sessions for the education and professional studies strand of the PGCE programme where students work in mixed subject groups. The University expects all tutors to undertake research and scholarly activity. As in many other higher education institutions (Pope and Mewborn 2009) any tutor who does not have research qualifications is expected to complete a Masters or Doctorate as required.

Mentors are expected to be role models for the student teachers, demonstrating and nurturing reflective practice. They are expected to have a weekly meeting with

their student teacher reviewing progress and negotiating targets. Usually the student teacher works with at least one of the mentor's classes. The mentor co-ordinates the school experience of the student(s) within the department, and assesses their progress at the end of each placement. The vast majority of students are placed individually. Where students are placed in pairs or threes they each have a personal mentor.

The Teaching School has a very strong mathematics department involved in a range of outreach and collaborative work with its family of schools, both primary and secondary. The head of mathematics and the joint school/university appointee have substantial experience in advisory and consultancy work. The joint school/university appointee enabled a different model of placements to be explored. The school department takes four student teachers at any one time and the appointee is mentor to all four. A small number of schools offer contrasting placements to the Teaching School which is a high performing selective girls' school, enabling eight students to participate during the year. The student teachers write a short application to be involved, mindful of the need to be confident with mathematics up to A level.

The school/university joint appointee has both the university tutor role and school mentor role for the student teachers alongside becoming a valued senior member of the school.

### **The evidence**

At the end of the academic year the team collated the PGCE student outcomes including school grades and academic attainment, and course evaluations. Team members undertook interviews with school based and university based colleagues and identified key points from their reflective journals. The PGCE student data was collected as a matter of course and students gave their permission for its use as part of the case study. Colleagues based in school and university were invited to contribute to the evidence base and volunteers from the university took part in a focus group discussion, while school colleagues had one to one discussions with individual members of the mathematics education team. The joint appointee was not involved in the interviews. A semi-structured interview schedule was devised to help ensure that the same themes were discussed with all interviewees but also to allow the interviewer to probe where appropriate.

We investigated whether the tutor groups were equivalent in terms of prior attainment and outcomes. Although the students who had worked with the joint university/school appointee were slightly stronger academically and did particularly well in school, there was no statistically significant difference in performance. All the students who had worked with the joint appointee reported that there was coherence between school and university expectations and were generally happy with the course documentation. Other students were slightly less happy with the overall coherence between school and university expectations.

The focus group of university tutors was very positive about the new team, they felt the team was collegiate, pro-active, had high expectations and were very committed. They recommended that team members established clearer boundaries with students and were more confident and assertive in whole course discussions and developments, as the team members had a great deal to contribute.

School based colleagues were excited by the opportunity to work more closely with the university. They said that having more student teachers in the department had been very rewarding. They observed that student teachers really benefitted from having access to their mentor/tutor whilst in school. A major concern was that the role

and responsibilities of the joint appointee lacked clarity and colleagues tended to defer everything to do with the student teachers to the joint appointee, even though the department had a number of experienced mentors.

During the year there had been a Teaching Agency (TA) funded project on lesson study (Lewis and Tsuchida 1988) involving the Teaching School and University with a number of other partner schools. Teachers, mentors, tutors and student teachers worked together to plan, teach, evaluate, refine, teach and evaluate lessons designed to promote mathematical dialogue and argumentation. This was led by the joint appointee working with a professor from the University. The outcomes were shared at a conference involving colleagues from all the schools involved and all the student teachers (AGGS 2012). The team plans to build on this experience to enhance the effectiveness of the PGCE and its contribution to the professional development of teachers in partnership schools.

The tutors found the year challenging: new cultures, documentation, expectations and relationships. For the joint appointee a new school, moving into initial teacher education and embarking on Masters level study was rewarding but very demanding. Time spent travelling between school and university was a lost opportunity for enculturation in either environment. Making space away from the student teachers when in school was difficult. The biggest challenge was, as a mentor, having to assess students on school practice whilst also being the tutor.

## **Conclusion**

The year provided significant challenges for the tutors developing as a team in a well-established ITT provider. In addition the joint school/university appointee had to negotiate a new school in which she had a senior appointment and embark on Masters level study. There is no evidence to suggest that the student teachers had a less good preparation despite the new team.

University and school colleagues were positive about the new team and the new type of appointment. Benefits were perceived for the course as a whole and the student teachers. The Teaching Agency funded lesson study pilot was particularly successful, strengthening partnership with schools, enhancing the professional development of all involved and informing future developments of the course.

Building on the experiences of the first year the team intend to

- incorporate collaborative planning, teaching, reflection and evaluation into the programme for all students
- work more closely with a number of schools
- pro-actively involve mentors in the university elements of the course
- exploit synergies across the different emerging routes into teaching
- be more explicit with student teachers about why they are asked to do what they do
- ensure that academic assignments are relevant to students' personal professional development.

The team will research the impact of lesson study on the development of the student teachers, colleagues in partner schools and their own understanding of effective pedagogy.

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