Student Teachers' Impressions of Primary Design and Technology in English Schools: A pilot study

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Abstract

This paper arose from a joint Nuffield Foundation and Design and Technology Association seminar in February 2002. One of the recommendations was that primary initial teacher education (ITE) trainers, together with teachers in schools, would use their normal working activities to generate data that can be used as the basis for academic papers. Initially it provides the background to the present research project, focusing on concerns regarding the position and status of design and technology in English primary schools since the introduction of D&T as a compulsory subject of the National Curriculum in 1990.

As a result of the seminar a group of ITE providers in South East England from the University of Brighton; Canterbury Christ Church University; Goldsmiths, University of London; Roehampton University and St Mary's College, Twickenham first met in the Summer of 2004. The aim of the research was to develop a clearer understanding of the position and character of D&T in each ITE provider's partner schools. Each provider piloted a questionnaire, developed by the group, in 2004-2005 to gather data of primary student teachers' impressions of D&T and working practices in their placement schools.

The paper presents a summary of data from individual institutions and attempts to analyse and highlight some common key issues across the ITE providers. Finally, the paper draws some conclusions from the research and considers their implications for the planning and teaching of the ITE providers' courses and partnership links with schools in the future. The paper concludes by considering ideas for further research.

Key words

primary, design and technology, schools, student's impressions, curriculum, resources, initial teacher education

Introduction

A joint Nuffield Foundation and Design and Technology Association seminar in February 2002, '*Developing and celebrating good practice in primary design and technology*', formed the impetus for this paper. One of the recommendations was that a small working party of key players should develop a research framework and plan co-operative research activity utilising school and university links across participating universities. The main aim of the recommendation was to enable primary initial teacher education (ITE) trainers, together with teachers in schools, to use their normal working activities to generate data that can be used as the basis for academic papers (Barlex, 2003).

The first meeting of the National Research Group was held at the Nuffield Foundation in February 2004. As a result a group of ITE providers in South East England from the University of Brighton; Canterbury Christ Church University; Goldsmiths, University of London; Roehampton University and St Mary's College, Twickenham have met on a number of occasions. The aim of their research was to develop a clearer understanding of the position and character of D&T in each ITE provider's partner schools, as experienced by the students.

Art, design, craft, technology and science have a long history in the curriculum of primary schools in England, but it was not until 1990 with the introduction of the National Curriculum that there was a legal obligation to

deliver design and technology. The National Curriculum D&T Orders (DES, 1990, DfE, 1995, DfEE, QCA, 1999) Programmes of Study for Key Stage 1 and 2 (5-11 years) lay down the content that had to be covered, including designing and making in a range of materials including food, textiles, electrical and mechanical components, stiff and flexible sheet materials and mouldable materials. It is acknowledged that children's achievement and progress has improved slowly but steadily since the first Ofsted inspections in 1994, though pupils' making skills are better than their designing skills and both are better than their knowledge and understanding (Ive, 1999).

Planning and teaching of D&T in primary schools has developed considerably and, as one teacher commented in the early stages, 'design and technology was our weakest curriculum area. This was due to a lack of confidence, expertise and understanding amongst staff' (Vaughan, 1997). D&T is a new curriculum area for primary teachers who qualified before 1990, when it was first included in ITE courses. In-service courses to accommodate these changes were varied (Benson, 1997) and it was not until 1993 that money became available to set up courses to enhance teachers' subject knowledge through government funded Grants for Education Support and Training (GEST) in-service courses.

In recent years, the introduction of national literacy and numeracy strategies has had a considerable impact on the classroom time allocated to D&T in school (Rogers and Davies, 1999). However, in-service courses funded by the Teacher Training Agency (TTA) and the D&T Association have been very successful in helping primary teachers to develop the skills and knowledge to teach D&T in the classroom, and plan and co-ordinate D&T within their schools (Perry, 2003). Teaching resources to support the teaching of D&T in primary schools have become increasingly available from sources such as the Qualifications and Curriculum Agency (QCA) Scheme of Work (Martin, 2001), the Nuffield Primary Project (Mitra, 1999) and the Design and Technology Association Help Sheets and Lesson Plans (The D&T Association, 2002).

It was apparent from the early days of the introduction of the National Curriculum that ITE institutions have very different time allocations, ranging from five to forty hours for each student (Ager and Benson, 1997), and this remains unclear. It is suggested that newly qualified teachers should be able teach 'with advice from an experienced teacher where necessary' (TTA, 2002), but in many cases the class teacher may not have the expertise or opportunity to provide them with such a rich experience (Davies, et al, 2000, Rogers, 2004). College courses, though limited, are frequently overridden in practice by the classroom, with reduced flexibility of the curriculum and other constraints such as resources, accommodation and limited time (Davies and Rogers, 2000). Finally, an additional complication is presented in the latest Standards and Requirements, to prepare student primary teachers on ITE courses to teach a range of work across subjects including 'art and design or design and technology' (TTA, 2002, P11).

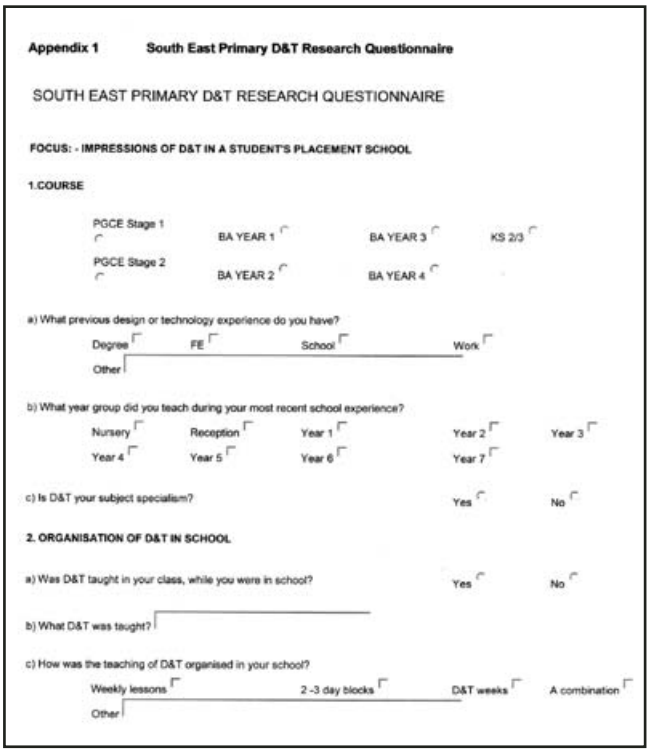
Methodology

It was against these issues that the South East England group of ITE providers decided to gather data of the nature of D&T in their local primary schools. The decision to focus on the perceptions or impressions of their students, as carried out in Scotland (Dow, 2003), was because this would provide a picture of the position of D&T in the schools. It would help tutors identify issues that needed to be further developed or reinforced during taught university sessions.

In the summer of 2004 the university tutors developed the pilot questionnaires based on their perceptions of good practice in schools. The content was discussed and agreed at two meetings, the main headings were:

- Course details for the student
- Organisation of D&T
- Accommodation
- Materials available
- Displays
- Policies

Details of the online questionnaire, shown in Figure 1, can be seen in Appendix 1. This was made available to individual institutions through their university website. The results were held centrally at Goldsmiths before being passed to each institution. Though students were encouraged to complete the questionnaire it was done on a voluntary basis in the late Autumn and early Spring of 2004/2005.



Appendix 1 South East Primary D&T Research Questionnaire

SOUTH EAST PRIMARY D&T RESEARCH QUESTIONNAIRE

FOCUS: - IMPRESSIONS OF D&T IN A STUDENT'S PLACEMENT SCHOOL

1.COURSE

PGCE Stage 1 ☐ BA YEAR 1 ☐ BA YEAR 3 ☐ KS 2/3 ☐

PGCE Stage 2 ☐ BA YEAR 2 ☐ BA YEAR 4 ☐

a) What previous design or technology experience do you have?

Degree ☐ FE ☐ School ☐ Work ☐

Other ☐

b) What year group did you teach during your most recent school experience?

Nursery ☐ Reception ☐ Year 1 ☐ Year 2 ☐ Year 3 ☐

Year 4 ☐ Year 5 ☐ Year 6 ☐ Year 7 ☐

c) Is D&T your subject specialism? Yes ☐ No ☐

2. ORGANISATION OF D&T IN SCHOOL

a) Was D&T taught in your class, while you were in school? Yes ☐ No ☐

b) What D&T was taught? ☐

c) How was the teaching of D&T organised in your school?

Weekly lessons ☐ 2 -3 day blocks ☐ D&T weeks ☐ A combination ☐

Other ☐

Figure 1: Online questionnaire: further details in Appendix 1

Brighton University: total 37 students

Data was collected from 37 students on the primary undergraduate programme BA Hons with Qualified Teachers Status (QTS). There were 27 Year 3 and 10 Year 4 students. The majority of the students had experience of the subject at school level and only one student had studied D&T at further education level; three had no experience at all. The majority of the students were teaching at Key Stage 1 with an even spread between foundation stage and Key Stage 2. In terms of the total number of D&T specialists (5 out of 8), the response was good.

Canterbury Christ Church University: total 35 students

Two very different groups completed the questionnaire immediately after their second school experience placement. 19 Part-time Postgraduate Certificate of Education (PGCE) mature students, many of whom had worked as Teaching Assistants prior to joining the course, but who had received only 3 hrs input on D&T within their course prior to completing the questionnaire. 26 Year 2 BA (QTS), including 3 mature students, part way through their D&T course; they had received 15 hrs input in Yr1 and 30 hrs in Yr2 when they completed the questionnaire.

Goldsmiths, University of London: total 34 students

Data was collected from 11 PGCE students on their return from their second placement in February 2005 at the beginning of their D&T course. In addition data was collected from 23 BA: Education (Ed) students in their second placement in March 2005. The majority had opted for a second D&T course although only 7 were D&T specialists who would continue with D&T.

Both cohorts spent their first year/stage placement in their target age phase, with Early Years and Key Stage 2 specialists placed for their second placement in Key Stage 1 classes. Both cohorts were taught in mixed phase groups. A small percentage of the students did not teach D&T, or see it taught, though those following the second year option were required to teach D&T for their assignment.

Roehampton University: total 44 students

Data was collected from 44 postgraduate PGCE students immediately following their first school placement and half way through their compulsory D&T foundation course. 36 of the students were Key Stage 2 and 8 were Key Stage 1. 42 of the students relied on their school experience of D&T. Their teaching experience in their placement schools was well-spread across the year groups with the highest number (10) in Year 6. None of the students were PGCE D&T specialists, this has been common for Roehampton over a number of years, despite a strong tradition of a specialist D&T group on the BA Primary Education with Design and Technology programme.

St Mary's College, Twickenham: total 35 students

All the students were in Year 2 of a BA (QTS) programme and had chosen D&T as their specialist subject. They had all attended a D&T non-specialist course in Year 1 and a specialist food technology module. The student group was mainly women with very few men or mature students. They had all completed first and second year school experiences in reception, Key Stage 1 or Key Stage 2 before filling in the questionnaire.

Findings and discussion.

Details of each ITE provider's results are in Appendix 2. The total number of questionnaires completed across the ITE providers was 185. This was disappointing in some ways but it was a pilot and a voluntary student task. The use of online facilities was appreciated and positive but there are issues of HEIs retaining hard copies to protect against computer problems. If the exercise was repeated individual HEIs may prefer to take responsibility for their own data collection and handling. However, the range of data collected was rich and highlighted some interesting issues across the ITE providers. The key ones were:

The high percentage (83%) of the students that were dependent on their D&T experience in their schooling (Figure 2) with none, including PGCE students, with a D&T related degree. This does require further attention as there are very few 'D&T' degrees and some may not be aware that their degree is related to the subject area.

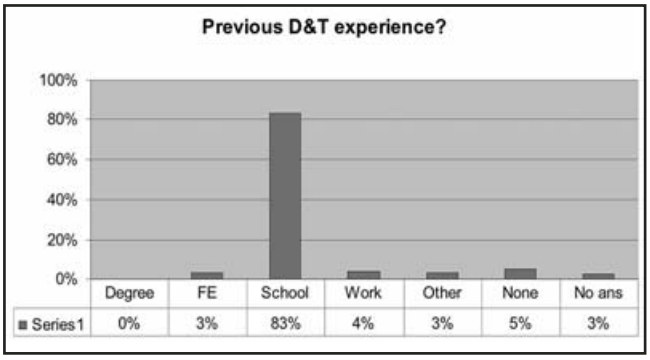


Figure 2: What previous design and technology experience do you have?

It was encouraging to see that the students had taught D&T across the year groups with Year 1 (20%) and Year 2 (17%) the highest groups. It is important to note that only 56% of the students were D&T specialists (Figure 3), which has implications for future studies.

However, it was very encouraging to find that 74% of the students had seen or taught D&T in their placement class (Figure 4). The impact of the content of the D&T courses taught by the ITE provider can be seen in the individual institutions results and there is evidence of a relationship between the sessions, areas of D&T taught and the teaching taking place in the classes.

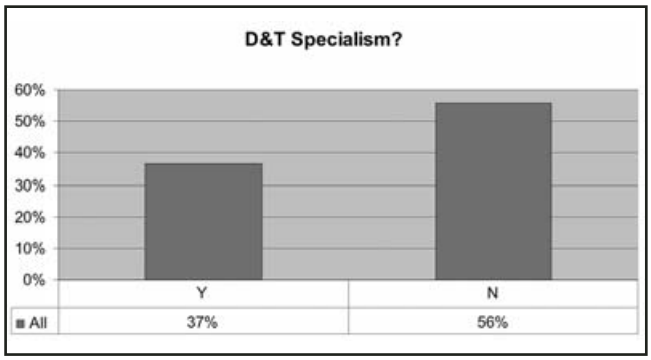


Figure 3: Is D&T your subject specialism?

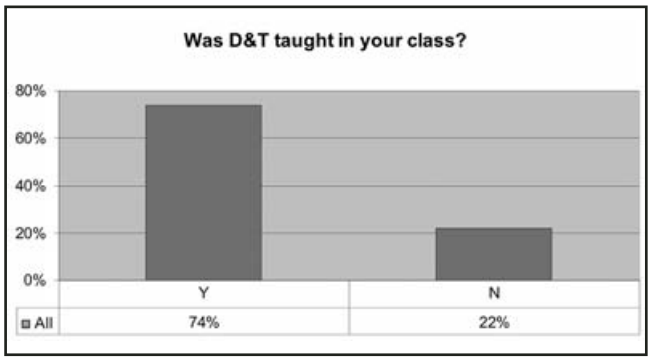


Figure 4: Was D&T taught in your class, while you were in school?

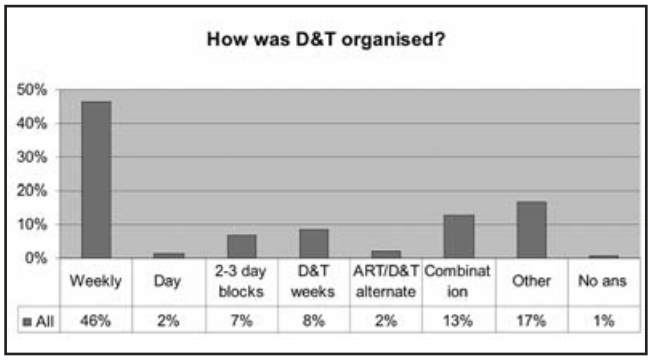


Figure 5: How was the teaching of D&T organised in your school?

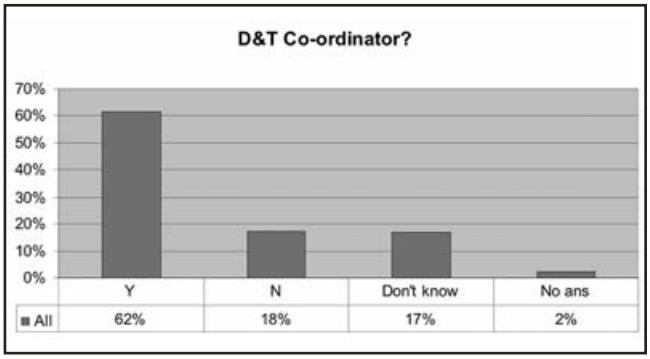


Figure 6: Was there a D&T co-ordinator/subject leader in the school?

The most common organisational approach used across the schools was weekly lessons (46%), (Figure 5) with 8% in D&T weeks and 7% in 2-3 blocks. 13% responses were combinational, but it was not clear exactly what this meant in practice. This wide variation indicates that schools are adopting different approaches, taking into account their circumstances and needs. This implies that the Primary Strategy (which favours blocking subjects) is not being widely implemented. There were some worrying comments indicating that D&T was being done 'when time allowed' or being done 'outside the classroom with the supervision of a parent.

The issue of the use of teaching resources, such as those from QCA, the D&T Association and Nuffield, by the schools is not fully addressed in the survey as students may not have been aware of previous planning and access to these resources. It does highlight that ITE providers need to ensure that the students are fully aware of such resources and implement their use, where appropriate, on their school placements. It may be that schools are unaware of what help is available, lack of LEA support or the current practice of not using subject-specific advisers locally. Teachers may use the documents at an earlier planning stage or plan their own lessons without their help.

62% of the schools had a D&T co-ordinator (Figure 6) and only 21% of them were co-ordinating other curriculum areas, most commonly Art & Design. This may be due to the commonality of the subject areas, similar resources needed to teach many aspects of both subjects or personal interests and skills. It would be interesting to find out if there was a clear distinction made between these two subject areas in schools. The concept of specialist D&T co-ordinators concentrating on the curriculum area is a goal for the future and one to be encouraged.

The majority (85%) of the accommodation in the schools for teaching D&T was in the classroom with 5% in specialist areas (Figure 7), though this probably due to provisions for middle schools in some local boroughs. This has implications for the management and pedagogy taught within D&T ITE courses. Students must be aware of issues related to managing D&T in the classroom including pedagogy, resources, suitable activities and health and safety. Similarly, they must be aware that a co-ordinator needs to be well-organised as the storage

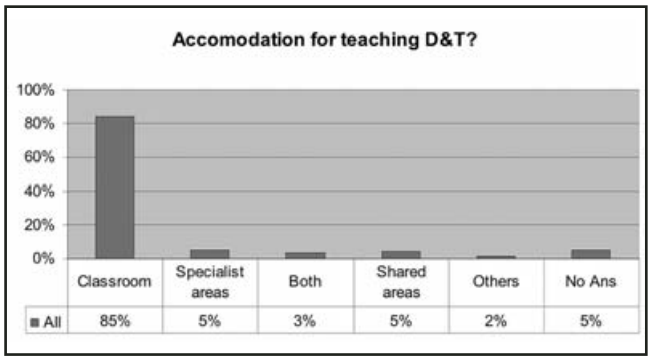


Figure 7: How was D&T organised and taught in the school?

of resources was most commonly in a store cupboard (65%), followed by the classroom (25%).

The range of D&T resources available to teach D&T varied across the ITE providers, though food and textiles materials were generally available and mechanical control was poorly represented. The range of topics seen and taught by the students appeared to be directly related to the D&T course covered by the provider. This is encouraging in that students are applying what they have been taught, but it implies that schools look to, and depend on, the subject background of the students. The concept of newly qualified teachers (NQTs) working 'with advice from an experienced teacher where necessary' (TTA, 2002, 2.b) is therefore of concern.

It is encouraging that the students saw a number of links between D&T and other subject area in 57% of the schools (Figure 8). It would be interesting to see if secondary students, where traditionally subjects are very separate, would see such links in their school placement.

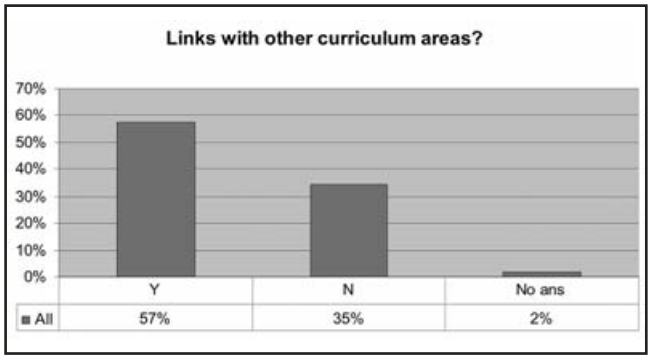


Figure 8: Did you see links between D&T and other curriculum areas?

However, it was disappointing to see only 59% of the students had read the school D&T policy in their placement school; indicating a key issue for ITE tutors to be raised with the students. There were 36% of schools with access to ICT to support D&T, but 35% of the students did not know if ICT resources were available. Finally, students commented that they had seen evidence of D&T other than in their classroom in only 36% of the schools. There is a message here for students to utilise opportunities where possible to highlight D&T through displays etc in schools.

Conclusions

This paper presents the findings of a small-scale research project in the South East of England, using a voluntary pilot questionnaire in five ITE institutions, and highlights some common issues across the providers. The focus of the paper is the impressions of primary ITE students of D&T in their placement schools. The findings are exploratory and at this stage they are being used by the providers to refine their primary D&T courses and consider ways of working more closely with teachers in their partner schools. If the questionnaire was used again it would require some modifications as a result of the pilot study.

The student response was limited, indicating that if the questionnaire survey was to be repeated decisions would be needed on the processes to be followed and the background and level of students' D&T expertise to be included. Students' impressions of D&T on one year post graduate and general foundation courses are likely to differ from those of specialist students who have in depth understanding and knowledge D&T backgrounds. There is the potential for further research to look at these differences and assess the impact of specialist D&T students on practice in schools. Essentially, the questionnaire has proved to be a useful tool to draw together and build an evolving picture of the nature of D&T in primary schools in five ITE providers and could be used, following revisions, to address additional aims across a wider audience and track future developments.

Recommendations for future research

- The questionnaire should be used as a basis for research in several institutions to address common issues across a number of schools and ITE courses.
- Separate data should be collected and analysed from specialist and non-specialist D&T students on ITE courses.
- There should be an investigation of the impact of the involvement of ITE students in curriculum planning in schools.
- Similarly, there should be an investigation of the curriculum links in primary schools between D&T and, for example, art and design, mathematics and science.
- The questionnaire should be used by an ITE institution to track changes over a period of years and the impact on courses and practice in schools.
- There are indications that good practice in schools is not widespread, which has implications for future in-service professional development in D&T for primary teachers.
- There are funding and resource implications for the D&T community if the activities listed above are to take place.

Bibliography

Ager, R., Benson, C. (1997), 'Primary ITE Courses in the UK – Developing D&T Education'. In Ager, R., Benson, C., (eds) *The First International Primary Design and Technology Conference; a celebration of good practice*, CRIPT at UCE, Birmingham, Vol. 1 and 2.

Barlex, D. (2003), Developing and Celebrating Good Practice in Primary Design and Technology – a seminar, the Recommendations and Results. In Benson, C., Martin, M., Wesley, T., (eds) *The Fourth International Primary Design and Technology Conference, Designing the future*, CRIPT at UCE, Birmingham.

Benson, C. (1997), 'In-service provision for design and technology for primary teachers'. In Ager, R., Benson, C., (eds) *The First International Primary Design and Technology Conference; a celebration of good practice*, CRIPT at UCE, Birmingham, Vol. 1 and 2.

Design and Technology Association (2002), *Helpsheets for the National Exemplar Scheme of Work for Design and Technology in Primary Schools and Lesson Plans*, Wellesbourne: The Design and Technology Association.

Davies, D. Egan, B., Martin, M., Rogers, M. (2000), 'Carrying the Torch – can student Teachers contribute to the Survival of Design and Technology in the Primary

Curriculum'. In Kimbell, R., (ed) *Design and Technology International Millennium Conference 2000*, Wellesbourne: The Design and Technology Association.

Davies, D., Rogers, M. (2000), 'Pre-service Primary Teachers' Planning for Science and technology Activities: influences and constraints', in *Research in Science & Technological Education*, Vol. 18, No 2, 2000, pp. 213-223.

DES (Department of Education and Science) (1990), *Technology in the National Curriculum*, London: HMSO.

DfE (Department for Education) (1995), *Design and Technology in the National Curriculum*, London: HMSO.

DfEE and QCA (1999), *Design and Technology: The National Curriculum for England*, London: HMSO.

Dow, W. (2003), 'Student Teachers' Perceptions of Technology Teaching in Scottish Primary Schools'. In Benson, C., Martin, M., Wesley, T., (eds) *The Fourth International Primary Design and Technology Conference; designing the future*, CRIPT at UCE, Birmingham.

Ive, M (1999), 'The state of Primary Design and Technology Education in England – Past Success and Future Developments'. In Benson, C., Wesley, T. (eds) *The Second International Primary Design and Technology Conference; Quality in the making*, CRIPT at UCE, Birmingham.

Martin, C. (2001), 'Using the QCA Scheme of Work for Primary Design and Technology'. In Benson, C. Martin, M., C., Wesley, T. (eds) *The Third International Primary Design and Technology Conference; Quality in the making*, CRIPT at UCE, Birmingham.

Mitra, J. (1999), 'Growing a community of good practice through a D&T curriculum development project'. In Benson, C., Wesley, T. (eds) *The Second International Primary Design and Technology Conference; Quality in the making*, CRIPT at UCE, Birmingham.

Perry, C. (2003) '2 days Lessons are….using a Collapsed Timetable to Teach D&T in Primary Schools'. In Benson, C., Martin, M., Wesley, T., (eds) *The Fourth International Primary Design and Technology Conference; Designing the Future*, CRIPT at UCE, Birmingham.

Rogers, M. and Davies, D. (1999), 'What has happened to Primary Design and Technology? – Student Teachers in Search of a Foundation Subject', unpublished conference paper presented at *BERA 99*, University of Sussex at Brighton (2-5 September).

Rogers, M. (2004), 'Is it possible to ensure the survival of primary design and technology through ten hour courses', *The Journal of Design and Technology Education*, Vol. 9. No. 1, Wellesbourne: The Design and Technology Association.

TTA (2002), *Qualifying to teach: Professional Standards for qualified Teacher Status and Requirements for Initial Teacher Training*, Teacher Training Agency, London: Department for Education and Skills.

Vaughan, S. (1997), 'Starting from Scratch – Planning for Design and technology'. In Ager, R., Benson, C. (eds) *The First International Primary Design and Technology Conference; a celebration of good practice*, CRIPT at UCE, Birmingham, Vol. 1 and 2.

Appendix 1 **South East Primary D&T Research Questionnaire**

SOUTH EAST PRIMARY D&T RESEARCH QUESTIONNAIRE

FOCUS: - IMPRESSIONS OF D&T IN A STUDENT'S PLACEMENT SCHOOL

1.COURSE

PGCE Stage 1 BA YEAR 1 BA YEAR 3 KS 2/3

PGCE Stage 2 BA YEAR 2 BA YEAR 4

a) What previous design or technology experience do you have?

Degree FE School Work

Other

b) What year group did you teach during your most recent school experience?

Nursery Reception Year 1 Year 2 Year 3

Year 4 Year 5 Year 6 Year 7

c) Is D&T your subject specialism? Yes No

2. ORGANISATION OF D&T IN SCHOOL

a) Was D&T taught in your class, while you were in school? Yes No

b) What D&T was taught?

c) How was the teaching of D&T organised in your school?

Weekly lessons | 2 -3 day blocks | D&T weeks | A combination

Other

d) Did the school use the D&T QCA Scheme of work?

Yes | No | Don't know

If yes, what units did you use?

e) Did the school use the Design and Technology Association lesson and help sheets?

Yes | No | Don't know

If yes, which ones?

f) Did the school use the Nuffield Primary Solutions units?

Yes | No | Don't know

If yes, which?

g) Was there a D&T coordinator/subject leader in the school?

Yes | No | Don't know

h) Did they coordinate/subject lead other curriculum areas?

Yes | No | Don't know

If yes, which areas?

3. ACCOMMODATION

How was D&T organised and taught in the school?

In the classroom | In specialist areas | Shared areas

Others _____

4.MATERIALS

a) Where were D&T materials stored in the school?

In a store cupboard | Individual classroms | Boxed storage per project

Other storage provision _____

b) Was your school resourced to teach with?

Food | Textiles | Wood

Plastics | Mechanical control | Electrical control

Construction kits

c) Were ICT resources available to support D&T?

Yes | No | Don't know

5.DISPLAYS

Did you see evidence of D&T other than in your own classroom?

Yes | No | Don't know

If yes, which? _____

6.POLICIES

a) Did you read the D&T policy? Yes | No

b) Did you see links between D&T and other curriculum areas? Yes | No

If yes, which ones?

c) Are there any areas of D&T that you would have liked to have taught or observed being taught?

Would you willing to be interviewed following the analysis of the questionnaires?

Yes No

If yes, please give the following details so that we can contact you.

Name:

Telephone (mobile if possible)::

Email:

Submit Query Reset

Appendix 2
Individual results from each ITE provider

Brighton University

71% saw D&T being taught in schools addressing a wide range of activities. Although fifteen schools were identified as using QCA schemes only eleven units were specifically identified. However, two named units were identified as Art and Design QCA units. Some of the titles suggested a lack of understanding of good primary practice by the school. Ten schools were identified as using a combination of delivery modes but the majority organised their teaching as weekly lessons. Only one school made use of DATA help sheets and no schools using the Nuffield units. 65% schools had D&T coordinator, of which 37% had other curriculum responsibilities. These were not specified but as the use of art units were identified it suggests that Art and D&T are often grouped together.

The majority of teaching of D&T was taught in the classroom as apposed to shared or specialist areas, indicating a need for mobility in regard to practical resources. This also raises questions about organisation and management during the teaching of the subject. The majority of resources were stored in cupboards and a small number used racks and trolleys which may address the issue raised above regarding mobility. There were no indications that the resources seen were not directly divided into area but were grouped together. There was some use of ICT linked with D&T however it is no clear how as the question did not allow for a more specific answer. Twelve responses indicated that they was evidence of 'other' D&T displays outside the classroom. Finally, 60% of respondents took the trouble to read the policy though they did not see links between D&T and other curriculum areas.

Canterbury Christ Church University

The Year 2 group display their commitment to their subject (10% of the post graduates read the schools' D&T policy, compared to 50% of the Year 2s), demonstrating a greater awareness of links between subjects in their own classroom, evidence of D&T across the school and of the range of D&T resources available. This is as would be expected of students who are, perhaps, already beginning to envisage themselves as D&T Co-ordinators.

The Year 2 group also seem to be more certain about whether or not their school used the QCA scheme. In conversation after completing the questionnaire, several students said that schools had devised their own schemes and two reported schools moving to cross-curricular topic work. In general, the PGs did not appear to view D&T as an important subject. This may be due to their much lower personal experience of D&T as well as the low profile of all Foundation Subjects within the PG course.

The Year 2s appeared to have been far more pro-active in creating space for D&T within their teaching. In answer to "What D&T was taught?" one of the Year 2s wrote "Only by me!" One Year 2 student reported her indebtedness to one of our Year 3 D&T specialists on placement in the same school, who stressed to her the importance of children making genuine design choices and they jointly planned their own scheme for bread-making. No such comments came from the post graduate group.

Goldsmiths, University of London

A wide range of activities were taught, with Fruit Salad, followed by vehicles, being the most popular at Foundation and Key Stage 1. Construction was high on the activity scale with Celebrations used a focus for Christmas cards, Chinese New Year cards.

More than a third of the students (39%) reported that D&T was taught in weekly sessions with 20% reporting a combination of weekly and blocked time. The Year 2 students had more investment in whether the school used QCA because of assignment requirements; however there was little evidence of DATA Guidance/Help Sheets of Nuffield Schemes being used, despite local support through the TDA/DATA co-ordinations course.

More BA Year 2 students than PGCE appeared to be aware that there was a D&T Co-ordinator and a high percentage did not co-ordinate other areas. Storage of resources was most common in a cupboard, followed by a classroom. Food and textiles resources were the most common with mechanisms the least. ICT resources to support D&T were available in 50% of the schools.

A high percentage of the students had not read the D&T policy with more evidence of links with other curriculum areas for example literacy and art.

Roehampton University

30 of the students taught D&T on their placement. Food was frequently covered through a 'healthy sandwich' and for one student Christmas cookies. Electrical and mechanical components were taught through making a 'buggy' using a motor, clocks, wheeled vehicles, levers in pop-up Santa cards and 'moving jungle animal heads' and structures through making a shelter (Anderson), a money box and wire models. Puppets, purses and slippers covered the textiles element. This was encouraging for tutors as many of the examples are integrated into the compulsory D&T course for all PGCE and BA students.

Weekly lessons of D&T were the most common (20), followed by D&T weeks (6) and 2-3 days (2). 5 schools used the QCA Scheme of work, though 30 students did not know if they did or not, as was the situation with the DATA lesson plans, help sheets and the Nuffield Primary solutions. 24 of the schools had a coordinator and the most common links were with art followed by PE.

D&T was taught in the classroom in 33 of the schools and 2 schools had a specialist D&T centre. The store room was used to store D&T materials in 36 of the schools, 7 stored resources in individual classrooms and 3 had boxed storage. An encouraging range of materials were used with textiles taught in 31 schools, food in 27, wood in 17, construction in 13, electrical control in 12 and plastics in 10 schools. ICT was available in 14 schools but 22 students said that they did not know.

D&T was seen outside the classroom in 31 schools, for example cars, food, sewing, art week display and making moving objects. A disappointing 41 students had not read the school D&T policy but links were seen with literacy (4) geography (4), art (3), science (2) and a range of other curriculum areas.

St Mary's College

On their last school experience, the students were mainly in Year 3 (10 students), Year 4 (8 students) and Year 5 (10 students) and Reception Classes (6 students).

83% of the students were able to teach Design and Technology. D&T was mainly taught weekly (40%) in their own classrooms. The topics taught most were Food, Mechanical Control and Textiles which is interesting as these topics feature in the HEIs specialist courses. The results show that 31% of students taught food technology, again a topic that had just been completed in College as a specialist module. It is possible that these students had a say in choice of topic and having just completed a food technology course felt confident to teach it alongside a national interest at the present time.

43% students said their schools use the QCA scheme and 26% said they did not, with a significant 30% of students did not know if it was being used. A high percentage as some of college based lectures were linked to the QCA Scheme of Work in first and second year D&T modules and students were made aware of "Primary Solutions" in lectures. None of the students saw the DATA Helpsheets and Lesson Plans being used. 15 students did not know if they were used and 9 were sure that they were not used. The most common subject that was shared with D&T as a curriculum area to lead was A&D.