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### Introduction

During the final year of their four year Primary B.Ed.(Hons) degree at Wolverhampton University all students take part in an Initial (Teacher) In-Service Training (IT-INSET) project for their main subject. The following article describes the development of this module and includes excerpts from some of the design and technology students' reports.

### Setting the scene

Prior to 1991 the IT-INSET module was part of the Teaching Studies element of the B.Ed.(Hons) course. It was coordinated centrally and it offered students a selection of projects based at local primary schools. The students would select a project according to interest or geographic location. None of the projects were primarily concerned with design and technology.

The new Primary B.Ed.(Hons) degree initiated in 1991 required that the IT-INSET module be based on the students' main area of study to be organised and evaluated by the subject tutor. Therefore in September 1994 I started to consider preparation of the Module Guide for students who would be undertaking the module in the New Year.

The concept of IT-INSET was new to me although I'd been involved in many INSET projects during my time as an advisory teacher for Coventry LEA. I looked for guidance from the recommended research texts and tutors familiar with previous projects. IT-INSET is

"...an approach to teacher education that combines focused in-service training for teachers with school-based initial training for students." (Ashton et al, 1989)

The following excerpts were taken from the original guidance for the module provided by the module leader Dr G Gomez:

#### "What is IT-INSET?"

It is an acronym for Initial (Teacher) In-Service Training.

It is a development which allows students to experience in-service, school-based training, working alongside teachers.

### Rationale

Planning as a member of a team is very much part of the curriculum development process in primary schools today. In addition, teachers are increasingly required to evaluate their curriculum. These changes may have been brought about as a result of government directives or as part of the teacher's professional concerns about providing their pupils with a curriculum to meet their needs. IT-INSET brings together curriculum planning, implementation and evaluation in relation to a perceived curriculum need with a group approach."

The description included in the module guide stated that

"IT-INSET is an aspect of ITT which takes place in collaboration with the continuous professional development of serving teachers. It starts from the premise that the best way to sustain improvement in education is for teachers to engage in collaborative review of the curriculum in their schools and classrooms with the purpose of improving pupils' learning."

Once I became familiar with the requirements of this level three module, which required 150 hours of study, I realised that this type of problem-solving activity would be second nature to the design and technology students. They could further develop their designing by the identification and production of resources for their clients, the schools. They were already practised at planning, preparing and presenting their work – but INSET would certainly be a challenge.

I produced a guide for the students in which the aims and objectives were explained. The culmination of their work was to be their completion of the following assignments:

"1) For this assignment you are required to produce an individual record and analysis of the Design Process involved in planning and executing the IT-INSET project.

You should include the entire Design Process – from 'identification of the need' to 'evaluation'.

Evidence of the review and consultation of appropriate literature should be apparent in your analysis.

Evaluation of the dynamics of the group working situation should be considered.

The appendices should include:

- research materials,
- minutes of meetings
- brainstorm/plans etc.

2) For this assignment you are required to plan and execute an IT-INSET project for the school.

The culmination of this project will probably be a group presentation of an INSET session for an identified audience (school staff, phase staff, year staff etc.). This will depend on the individual school's requirements.

You will be expected to research, plan, resource, organise, present and evaluate the project.

A package of the materials developed for the project should be produced – as a useful resource for yourselves and the school.

You should also prepare a means by which the audience can evaluate the experience." ( D. Buckley 1996)

### The IT-INSET projects for 1996

As a result of a variety of sources three local schools were identified as interested in participating in design and technology based IT-INSET projects and I contacted them in January 1996.

I arranged meetings with head teachers and/or design and technology coordinators, as appropriate, and described the module to them. They were all very keen to

accommodate the students and were extremely interested in the prospect of some design and technology INSET for their staff but all expressed the problem of finding time for extensive teacher participation.

Therefore all three schools preferred the idea of a whole staff INSET session. Only School B wanted additional class-based activities. Some possible areas for research were discussed.

The results of these initial consultations were noted and presented to the students as follows:

#### School A

**Need** – to look at whole school schemes/topics with a view to planning design and technology activities to ensure progression and coverage of National Curriculum design and technology.

**Method** – whole staff INSET session presenting ideas for progressive activities through existing topics.

- possible practical workshop for staff... for identified need (student research and teachers to identify).

#### School B

**Need** – to look at how design, in particular, was taught and to consider strategies to develop progression.

**Method** – working with all classes from Reception to Year 3.

- presenting the results of the classroom activities to the rest of the staff.

#### School C

**Needs** – to look at whole school schemes/topics with a view to planning design and technology activities to ensure materials progression and coverage of National Curriculum design and technology.

- to identify the school's resource needs for design and technology.





*The teachers were encouraged to participate in the practical activities – with help at hand!*

**Method** – whole staff INSET session presenting ideas for activities through existing topics.

- practical workshop for staff..exploring activities suggested in the produced resources.

#### **Student identification of the task**

Once the students had established groups and selected the particular project that interested them I contacted the schools and arranged opportunities for meetings with the staff. The students prepared questions, identified areas of research and nominated a secretary to take minutes.

From these initial meetings each student group identified roles and responsibilities for the individual members and planned their programme of work.

*Exploring frameworks and structures using straws*



"At the first meeting with the school, it was decided that each student would work with a particular year group and teacher..that they would produce a technology input for the themed topics for Summer '96...In addition a central carousel presentation would be given by the group, to the staff...a portfolio of resources and materials for the teachers would be left with the school" (student School A)

Over the next four weeks the students organised their own visits to the schools. I participated in some of these meetings and provided a forum for discussion at CDATE. They collected data by interviewing school and LEA staff, where available, studying appropriate research materials, exploring schools' policies, resources, organisational methods etc.

"It was during this period that group discussions gave rise to a list of group needs that were commonly agreed upon. They are listed as follows:

- To research, plan and begin the implementation of four Units of Work under the topics of:  
Toys (Reception)  
Homes (Year One)

Vehicles (Year Two)  
The Vikings (Year Three).

- To implement selected lessons within partnerships or as a whole group and focus upon the design concept in all classes.

- To produce a resource pack that outlines the theoretical issues behind the programme and offers practical ways for teachers to implement similar units of work in the future.

- To devise a simple feedback system for both teachers and the Group members to use as part of the evaluative process.

- To conduct a short presentation that would report to the whole school the achievements of the Group, how the



achievements were made and how they could be achieved again easily in the future" (student School B)

The groups of students working with Schools A and C ultimately settled for a similar model for their INSET project. They both produced a package of resources based on the topics originally selected by the schools. These resources contained design and technology activities which promoted the development of design and technology capability and progression. They also endeavoured to include a selection of methods for recording the design process.

In addition to producing schemes, resources etc. groups A and C carried out some useful practical and organisational activities in their schools. They both considered it important to leave the schools in a 'state of readiness' with regard to equipment, resources etc.

Group A concentrated on the organisation of the design and technology trolley plus producing some additional equipment. Meantime Group C got "down and dirty"



Above: The construction kit table included a resource of activity cards developed by one of the students, based on the schools own kits. Design sheets were prepared to encourage the recording of the design process

clearing out and reorganising the design and technology cupboard.

The group based at School B studied the school's schemes and also produced resource packs but theirs contained lesson plans which focused on particular elements

Figure 1: A simple design sheet for working with the construction kits

### Design Technology – Farm Machinery – Evaluation

What materials did I use?

What I did:

Draw a picture (diagram) of your design:

How could I improve my design?

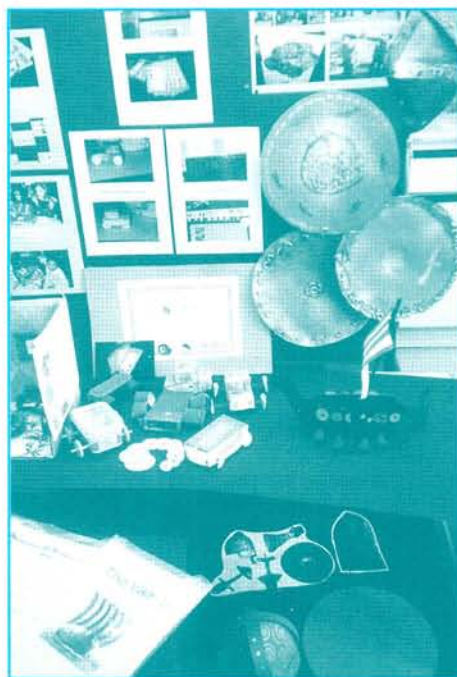
Draw a diagram of your improved design:







*The teachers were encouraged to complete the design sheets and experiment with the kits*



*A closer look at some of the resources prepared for the school and examples of the subsequent children's work*



of designing –according to the teachers' identified needs. They then carried out these lessons obtaining teacher and colleague feedback.

#### **"D(&T) Day" – the presentations!**

During the scheduled staff-meeting in the fifth week all the groups organised and presented their INSET.

#### **School A**

The group spent a knee-knocking afternoon setting up a carousel of practical activities in the main hall. They began with a brief introduction where the students offered a brief resume of the N.C. requirements for D&T plus their rationale for promoting children's design and technology capability. They presented their pattern for planning... the DATA Guidance Materials and mentioned the advisory help available from the LEA.

Each practical activity that was on offer was taken from the design and technology activities that they had included in their schemes, having been identified by the teachers involved, as a particular area of concern.

#### **School B**

The group were given 30 minutes to report back on the work that they had done with the children and staff. To encourage the teachers interest they assembled a display containing examples of work which the children had produced and photographs taken during the classroom activities. Each student presented the individual resource that they had produced with accompanying suggestions.

#### **School C**

This group obtained additional equipment resources by contacting a local supplier who happily supplied materials, tools etc. for the presentation.

Once the final bell rang they descended on the classroom that had been chosen as the venue for the presentation and practical workshops.

*In a state of 'nervous anticipation' – students preparing for their presentation*



A general introduction based on the identification and use of resources was presented by a couple of the students. Then the teachers were encouraged to start with the practical activity taken from their particular topic. They then moved around the various tables trying out practical tasks and discussing them with the students.

To accompany the text-based resources the students had often designed and made practical resources.

#### Follow-up

Once the students had finished their IT-INSET presentations they had to evaluate that element using feedback from the staff. In addition they had to describe and evaluate, as a whole, the entire project.

Their reflections on their experiences were encouraging and showed a depth of commitment for the project as a whole. They made relevant and critical comments on their participation in the projects.

These comment from students in Groups B and A illustrate their concerns:

"The presentation was intended to report back to the School the Group's approach to the Design 'problem'. It also hoped to offer the School advice regarding the skills that should be addressed at each age – and how simple Units of Work can be devised through the use of story.

... it is felt that the presentation did not prove to be successful at all and two reasons are offered here.

... the group tried to rush through many points... this was far too ambitious... and... poor planning ... each Group member drafted his or her own speech ... which produced incontinuity ... and repetition"

"Despite the above points, it should be stated that on the whole, this was a very successful programme indeed. The Resource Packs speak for themselves and the lessons that were implemented by the Group were valuable learning



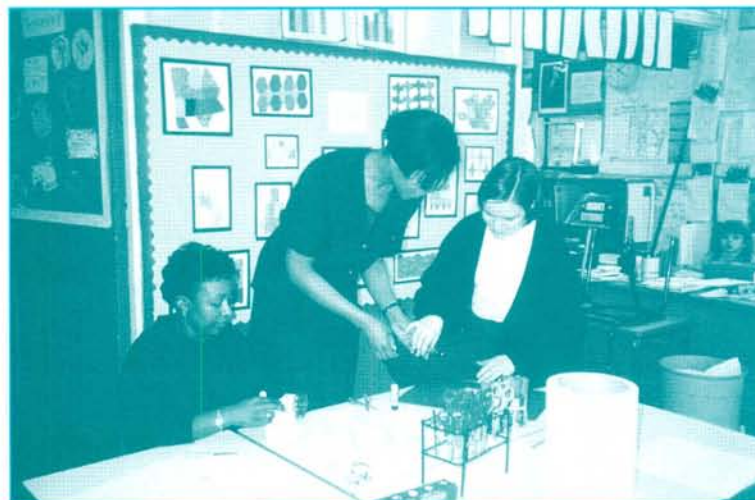
experiences for all concerned." (student School B.)

*The students talk the teachers through their particular resource package*

"The group concluded that overall the INSET had been successful and well received....although...there were too many activities for the staff to do in the time available.."

"This has been a difficult project. It has been quite stressful and difficult to complete, because of the nature of working within a group...A surprise was the reaction of the staff...to the carousel of activities...They appeared to be unsure and threatened by D&T as a curriculum area, although they welcomed the efforts made ... on their behalf. If (they) are indicative of most teachers in primary schools, then there is a great need for more In-service training" (student School A)

*The teachers explore simple paper construction techniques and decorative finishes as part of the "Protective Bag"*





The original aims and objectives of the module were achieved with the students combining the principles of IT-INSET with their own designing skills to effect useful experiences for both themselves and the teachers involved. They all worked extremely hard and produced some high quality work – which was appreciated by both myself and the schools.

A revelation was the development that I observed in their own personal philosophies concerning design and technology which was highlighted by the need to communicate this within their group and to an audience. This development reinforced the benefits of providing the opportunity for students to take part in such an INSET-based module.

"There is no doubt that all Group members enjoyed working on this project and will probably realise its full significance later on when they begin their teaching careers. Personally I would say that it has been one of the most self fulfilling modules undertaken during my time at Wolverhampton University" (student School B)

Many thanks to the schools and staff who welcomed us into their schools for the 1996 IT-INSET projects:

Great Bridge Primary School, Tipton, Sandwell.

Langley Primary School, Oldbury, Warley.  
Lilleshall County Primary School, Lilleshall, Newport.

Special mention to two students who allowed the inclusion of extracts from their individual assignments: David Price and Susie Lawson (now teachers).

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*Modelling food preparation using foam lettuce and felt cucumber*