CAMBRIDGE INTERNATIONAL DIPLOMA IN TEACHING WITH ICT

SAMPLE ASSIGNMENTS

DIPLOMA IN TEACHING WITH ICT

Sample Assignments

INTRODUCTION

We have created the following four sample assignments to give you a better idea about:

- the kind of evidence which is presented in Diploma assignments
- the way the assignment templates are completed
- the relationship of the assessment framework (eg the sequence of steps and prompts) to the practice and experience of the candidate, through the complete teaching cycle.

The candidate 'Tam O'Callaghan' is a fictional candidate. Tam's context and testimony is a reflection of the experiences of many real candidates. Tam is a subject teacher and also has responsibility for ICT across the curriculum.

Tam has completed the assignment steps and the reflective report using the assignment template provided by CIE. **Every** candidate **must** use the assignment template. It is an easy to use Word document. Candidates need to be reasonably comfortable with word processing.

Many candidates for the Diploma are using English or another language which is not their first language. We do **not** assess use of language in this Diploma - as long as the examiners can understand the sense of what you are saying to us, then this is the essence for our assessment.

Many different teachers and trainers enter for the Diploma, teaching all ages and ability levels in all sorts of contexts. The Diploma assignments enables each candidate to report on his/her experience in **his/her own** teaching context.

The Diploma is equally accessible to all teachers and trainers – ie it provides a 'level playing field' for assessment of teaching practice and performance.

CAMBRIDGE
INTERNATIONAL EXAMINATIONS

CAMBRIDGE INTERNATIONAL DIPLOMA IN

TEACHING WITH ICT

PLANNING TO USE ICT TO SUPPORT TEACHING AND LEARNING

By completing this form and submitting the assignment for assessment by CIE I confirm that the assignment is all my own work. I have appropriately referenced and acknowledged any work taken from another source.

Date of Submission					
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CIE Unique Candidate Identifier										
Centre No				Year		Cand. No.				Check Digit
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Candidate Name
TAM O'CALLAGHAN

MODULE 1   PLANNING TO USE ICT TO SUPPORT TEACHING AND LEARNING

Context

Please give **brief** information about **your** context

(approx **200** words)

Your personal experience

I've been teaching for 3 years. I gained a BsC in ICT with Education at Sunderland University in the UK. My first year in teaching was in London in a large inner city school. I soon discovered that I enjoy working with children of all nationalities and decided I would really like to work abroad. Since then I've been teaching at this International School. During my teacher training, I investigated how ICT could raise standards in teaching and learning. I also increased my familiarity and expertise with various software packages and have since helped colleagues to integrate ICT into their teaching. I'm still very excited by this opportunity and I'm lucky to be in a school with first class ICT resources. This is one of the main reasons why I chose to come and work here. Because I come from the UK, I have many friends who did the same course as me and are still teaching there. So I regularly keep in touch with them via email and we're able to swap ideas and talk about what is good and bad about ICT in the classroom. I think keeping in touch and sharing practice with teachers elsewhere is really helpful.

Your role and responsibilities

I teach Mathematics in the lower school and I'm also responsible for managing ICT across the curriculum. I'm assistant to the Head of ICT, but my main role is to co-ordinate and support the use of ICT across all curriculum subjects, particularly for pupils between 9 and 13 years old. I regularly meet with a team of teachers once a month and we plan together where ICT might be used to enhance teaching and learning. I also offer in-service training sessions to colleagues one evening each week after school. This mainly covers the use of generic software, mainly Microsoft. We also look at curriculum software reviews and do our own.

Your institution

This is a medium size International School. There are 375 pupils, with parents who are mainly in diplomatic service and international business. Most of the students stay for three years but quite a few only stay for twelve months. We have excellent ICT resources here including 3 dedicated ICT rooms. Nearly all classrooms have access to the Internet.

Your learners

The students are aged from 9 to 18 but I mainly work with the 9 to 13 age range. They are of mixed nationalities and abilities. Most have English as their main of second language. The use of ICT is very helpful here, especially to the students are not able to stay very long. In fact, many students who move on to other countries are still able to access some of the work they have done here.

MODULE 1   PLANNING TO USE ICT TO SUPPORT TEACHING AND LEARNING

Step 1   Using ICT to investigate a teaching and learning issue

(Word limit : 200-400 words)

Issue for investigation

When is it appropriate/not appropriate to use a database in the classroom?

Learning programme to which investigation relates

Use of databases across the lower school to help investigative work for most curriculum subjects.

Outline the investigation: ICT resource(s) and information source(s) used

I'll be looking at various database resources including CD Roms such as Encarta, the Internet and generic software such as Access and Excel. I'm interested in finding out whether ICT increases pupil motivation by offering increased opportunities for independent study and also whether the use of databases gives greater opportunity for differentiation with mixed ability classes.

Evaluate the results of the investigation

I've found out that whilst commercial databases are available in many subjects, it may be beneficial to use these instead of spending time creating complex databases yourself. These have specific curriculum benefits. Your time can be used to develop approaches to interrogating and searching data. Excel can be used to create 'flat-file' databases which only require simple sort and filter searches. These databases will have both curriculum and professional uses. Databases do offer increased opportunities to teaching and have been found to increase pupil motivation when used effectively in the classroom.

When to use a database

- To find key items of data matching specific criteria
- When data is required in a specific order
- When data is required in a specific group
- To investigate a range of outcomes from a large set of data
- To carry out a survey and/or graph data
- To store and retrieve information more effectively

When not to use a database

- When specific grouping of data is not required
- When data does not need analysis
- When small sets of data can be assessed more easily using other means
- When computer access is restricted

Examples of databases in the curriculum

- Geography - traffic survey
- Science - planets, variation data
- English - book reviews
- Mathematics - trends of variation data
- History - timeline database
- Technology - nutrition
- Modern Languages - verbs and their forms
- Creative Arts - artists, painters, major works

MODULE 1   PLANNING TO USE ICT TO SUPPORT TEACHING AND LEARNING

Step 2   Identifying opportunities for using ICT to support teaching and learning

WHOLE GROUP APPROACH

(Word limit : 200-400 words)

Learning session for which ICT is to be used

Finding out information about the Ancient Egyptians for a History lesson.

Identify the options for using ICT

Options available for me that use ICT are CD Encyclopaedias such as Encarta or use of the Internet. The use of the Internet gives me the best option because all pupils in the class can gain access to this resource. The school only has limited copies of CD Encyclopaedias and we don't have site licences for these. So pupil access to information will be that much slower.

State how the ICT chosen will contribute to meeting the learning objectives

I've chosen to use the Internet because this will help me to meet one of my main learning objectives - to encourage indpendent study among the pupils rather than lead the activity from the front.

Evaluate the benefits to be gained from using ICT

Pupils will have access to a vast database of information and therefore will be able to put together a very rich project. Pupils will be able to continue with this work from home where they have home Internet access and so will encourage learning beyond the normal school day. Pupils will be able to manipulate the information they obtain and put it into different types of presentations. Higher ability pupils will be able to produce a Powerpoint presentation, lower ability pupils will easily be able to manage a number of printed sheets with pictures using simple cut and paste techniques.

Justify the decision to use/not to use ICT for the learning session

We only had four weeks (4 x 1 hr lessons) to complete this project and this was the quickest way that pupils could research information put it into a reasonable looking presentation. Many of the pupils already had the skills required so it seemed logical to make the most of this.

Outcomes which would not be likely to occur (as effectively) without the use of ICT

In the time available, I think that without the use of Internet most students would have produced limited presentations and also not have found out as much information. I also think that the lower ability pupils would have suffered and perhaps lost motivation by becoming frustrated at not getting hold of interesting material, especially good pictures.

MODULE 1   PLANNING TO USE ICT TO SUPPORT TEACHING AND LEARNING

Step 2   Identifying opportunities for using ICT to support teaching and learning

SMALL GROUP/INDIVIDUAL LEARNING

(Word limit : 200-400 words)

Learning session for which ICT is to be used

Biology lesson with a small group (6 high ability pupils) investigating the wing structure of insects.

Identify the options for using ICT

ICT offers a fantastic opportunity to use digital devices to investigate this topic. The science lab has three Intel digital microscopes, a digital camera with macros settings and there is also a LCD projector in one of the ICT teaching rooms.

State how the ICT chosen will contribute to meeting the learning objectives

The pupils need to investigate wing structure by looking in detail at different insects. The use of ICT will greatly help to facilitate small group work whilst I can assist in preparing findings for a whole class discussion through a Powerpoint presentation that is being constantly updated.

Evaluate the benefits to be gained from using ICT

Incredible detail of insects' wings can be produced using the microscope and camera. Pupils can investigate for themselves these amazing patterns and compare families of insects for similarities in structure. Images can be saved and subsequently used by larger groups.

Justify the decision to use/not to use ICT for the learning session

Without the use of ICT, the level of detail the pupils will be able to see would be impossible. Without ICT, pupils would have to refer to images from books or at best, images from the Internet and even then, these would be limited. ICT offers a wonderful opportunity to share findings with others and to create a school based database of images for subsequent groups.

Outcomes which would not be likely to occur (as effectively) without the use of ICT

Level of detail magnified to different strengths using the microscope functions. The effects that different types of lighting can have on different wings. The ability to capture images and blow up on projection screens for whole group discussion.

MODULE 1 **PLANNING TO USE ICT TO SUPPORT TEACHING AND LEARNING**

Step 3 **Evaluating ICT resources for use by teacher and/or learners**

ICT RESOURCE 1

(Word limit : 200-400 words)

ICT resource evaluated

The Internet accessed through broadband connectivity.

Way(s) this resource could support teaching and learning

Helping pupils to carry out research from a 'world-wide database' by providing suitable text and images that can be integrated into reports using simple cut and paste techniques.

Suitability from your perspective and from your learners' perspective

The use of the Internet is very suitable because it is available from just about every classroom as well as from three specialist ICT classrooms. We're also connected via a broadband connection of 2Mb.

Way(s) in which you and/or your learners could use this resource

Pupils can access the resource from any classroom or specialist area using their own log-on ID. Access Internet is available one hour before school begins and for two hours after normal lessons finish. In addition, many pupils also have access to the Internet from home. The resource can be searched for specific information and results comprising text, picture, tables and sound files can all be obtained then pasted into different reports or saved in personal folders on the school's server.

Your experience of trialling the resource

The resource is very easy to use and posed no problems at all. As a trial run, I looked at the effects of typing key words into different search engines to see whether what was returned was the same - it wasn't! As a result, I've decided to limit the choice of search engines to pupils if only to save time.

Issue(s) identified in your trial use

Much depends upon the search engines that are used. I also found that key words had to be carefully selected as some words were often blocked by the Internet firewall! I 've also realised that unless the search is clearly focused, pupils are in danger of collecting lots of information but without any real purpose. I need to steer pupils into not making wide or vague searches. From a technical point of view, I've also noted that the Internet runs slightly slower at lunchtime - possibly due to the resource being more in demand by the rest of the school but this should not really effect my timetabled lessons - only those pupils hoping to carry out independent research.

Issue(s) related to managing the learning environment in using this resource

I need to ensure that all pupils have a log-on ID and password. One thing I'm concerned about is pupils looking for information that has nothing to do with the lesson. Whilst the firewall should help to prevent access to restricted sites, I still feel that I need to be more proactive and continually wander around the classroom, checking monitor displays. There is a resource available that can switch between different pupils' workstations and display the contents of their screens on mine but I'm still trying to convince the school why we should purchase this resource.

Explain how you would deal with these management issues

I need to work closely with the school's ICT technician and check that all pupils are capable of logging on to their accounts. In order to convince the school that they should purchase management software I need to provide examples of pupil misuse but then again I don't really want to see this happen in the first place!!

Your recommendation on whether or not this ICT resource should be used

Without question, this particular resource should be used!

Your justification for recommendation

The Internet is the only ICT resource that can provide the level of investigative work I am wanting the pupils to experience. Whilst CD Rom encyclopaedias would also be helpful here, they are very limited in the information that they can offer. The next best thing would be to purchase a dedicated CD Rom about Ancient Egypt but I would still have the problem of how to give many pupils access to this would purchasing additional licences. The Internet provides 'free' access to exactly the kind of information I want the pupils to find out. In addition, pupils can continue with their research, if they wish, before and after school or even from home if they have Internet access. The use of the Internet will also encourage independent learning and maintain motivation - this is one of my main teaching objectives.

MODULE 1   PLANNING TO USE ICT TO SUPPORT TEACHING AND LEARNING

Step 3   Evaluating ICT resources for use by teacher and/or learners

ICT RESOURCE 2

(Word limit : 200-400 words)

ICT resource evaluated

Intel digital microscope.

Way(s) this resource could support teaching and learning

By allowing pupils to magnify small objects, capture images in a common graphic format and incorporate these photographs into presentations.

Suitability from your perspective and from your learners' perspective

This device provides a very affordable solution to the Biology department. It offers a number of features including time lapse photography, magnification at three different levels, top and bottom lighting, and a moveable video camera. As it is a USB device, it will connect to most computers very easily. Pupils have found it easy to use and I have seen children from the age of 9 able to connect and use it successfully with the minimum of teacher support, once the software has been installed on the computer. I am also convinced that this is a suitable resource because I have read good reviews about it on the BECTA website in the UK (www.becta.org.uk).

Way(s) in which you and/or your learners could use this resource

To produce digital photographs of magnified images, to record time lapse photography of seeds growing, to provide different light settings in order to highlight key features for magnification.

Your experience of trialling the resource

Installing the software initially took two attempts but this was mainly my fault as I had not followed the instructions carefully! Once installed the computer detected the microscope as soon as I had plugged it in. I found the software very easy to use as it is menu driven. The only other problem I had was in trying to get a suitable image when magnified at the highest level - this is a bit fiddly and so I'll recommend to pupils that only the lower two levels are used. Saving the photograph was very easy too. I did begin to look at the time lapse feature but as this was not going to be used for the work with insects, I decided to postpone this to another time.

Issue(s) identified in your trial use

To make sure that the software is installed before the microscope is plugged in. The software cannot be installed on a network so individual workstations will have to be set up. In addition, the software would not run on a Windows NT machine, even thought it was installed on a single PC. The device can only plug into workstations that a USB connection.

Issue(s) related to managing the learning environment in using this resource

Fortunately I was using these devices with only six pupils. As I had three microscopes available, this provided an excellent ratio and the pupils were very happy to work in pairs. If I was carrying out this activity with a group of twenty or more however, I'd set this up at the back of the room as an alternative for those pupils who prefer this type of learning. I'd also make available text books, drawing materials and videos for other pupils because the wider the choice of learning opportunities I'm able to offer my pupils, the more productive my lessons are likely to be. I'm aware that some pupils have difficulty in using ICT resources without close supervision and without a lesson on how to use this device, one or two pupils might struggle and actually become demotivated.

Explain how you would deal with these management issues

When working with the small groups I need to ensure that there is sufficient space between the microscopes and workstations and that each group has a range of insects to examine. I also need to ensure that the pupils can readily save their images. Working with larger groups needs more careful thought, particularly with reference to where the resources are to be placed. This however is dependent upon whether I deliver the lesson in the Biology room where movement of the workstations is possible or whether the lesson is conducted in an ICT suite where the workstations are fixed.

Your recommendation on whether or not this ICT resource should be used

Absolutely! The insight the device can give into wing structure is amazing and for its price it's unbeatable.

Your justification for recommendation

There is little else on the market for the same price that can produce results of this quality. While digital cameras with macro functions can also be used, these require more careful setting up on tripods and are more expensive. The digital microscopes are very robust and will stand up to classroom use.

MODULE 1   PLANNING TO USE ICT TO SUPPORT TEACHING AND LEARNING

Step 4   Developing strategies for using ICT to support teaching and learning

LEARNING SESSION PLAN

(Word limit 200-400 words)

Target audience e.g. level, phase, age

A group of 20 eleven/twelve year old pupils.

Ability level 1

Higher ability - 8 pupils with several years ICT experience and good familiarity with Internet.

Ability level 2

Middle ability - 12 pupils with varied ICT experience, limited experience of using the Internet.

Subject/topic

History project - finding out about Ancient Egypt.

Ability Level 1
Learning aims and objectives
To be able to sift and sort information, understand bias, capture and manipulate media sources, interrogate databases from different sources.
Teacher and learner activities
Teacher - provides names of search engines and suitable URLs as a starting point. Learner - use search engines to locate required information from museums and educational sources.
Expected outcomes for learners
The pupils will have collected a vast amount of information but are expected to have chosen items of interest that are relevant to key areas allocated to each person for example: Kings, Pyramids, Gods, Clothing, Slavery, modern day Cairo etc.
Opportunities for developing learners' ICT skills
Using search engines, selecting relevant and unbiased data, manipulating digital media - photographs, video and sound, cut and paste techniques, using presentation software to present findings.
Opportunities for developing learners' other skills
Creative skills, literacy, numeracy, thinking skills, working as part of a group with a specific responsibility, independent learning, learning opportunities beyond the classroom.
Strategies for managing use of ICT effectively
As the teacher, I need to ensure that all equipment is available, has been checked for safe use and is fully working. I also need to ensure that all pupils have log-on accounts and are able to access the Internet. It will also be helpful if this group of pupils can access their data files from home (need to check with school ICT technician here) otherwise to arrange for CDRW media to be used when pupils wish to continue with this work outside the normal lesson.

Criteria for assessing learners' work and monitoring progress
We only have four weeks to complete this project therefore I've arranged to be able to examine each pupil's files on a daily basis and leave supportive notes via our intranet. I'll also give pupils the opportunity to assess each other's work - this is important as the whole group of 20 pupils need to have ownership of the project. These higher ability pupils will have greater responsibility for putting the final presentation together. The quality of this presentation will also be assessed by the other 12 with reference to overall look, design, content, relevance, use of digital media, ease of use, use of graphics, usefulness in supporting the History curriculum for the lower school.

Ability Level 2
Learning aims and objectives
To be able to sift and soft information, enter key words into search engines, locate suitable photographs that would contribute towards whole group presentation.
Teacher and learner activities
Teacher - to provide examples of search engines and a list of key words/per context Learner - use search engines to locate required information from museums and educational sources.
Expected outcomes for learners
All pupils will feel that they have contributed towards the whole group presentation, regardless of the level at which they have been working. For these middle ability pupils, they will have further developed their ability to search the Internet by narrowing down their search criteria.
Opportunities for developing learners' ICT skills
Using different search engines, locating relevant texts, cutting and pasting, image capture and subsequent save to own user area.
Opportunities for developing learners' other skills
Groupwork, discussion, taking responsibilities, literacy, numeracy, independent learning, opportunities for developing coursework outside of the classroom.
Strategies for managing use of ICT effectively
Same strategies as for higher ability group but increased need to demonstrate to this group how to cut and paste sections into other documents/own user area. Explanations needed why some data cannot be used due to copyright issues, particularly with some photographs.
Criteria for assessing learners' work and monitoring progress
Each pupils will be given responsibility for checking another pupil's evidence to ensure the correct context has been identified from data sourced from the Internet. As with the higher ability group, I shall monitor pupil's work areas and email commentary to pupils as appropriate via the school's intranet.

NOTES

We shall use one of the specialist ICT suites during the four weeks as this provides a 1:1 access ratio to the Internet for the pupils. This needs to be booked in advance by me. I need to ensure that Powerpoint and a LCD projector is available for the last lesson when presentations will be given. I also need to find out which pupils need access to a CDRW in order to develop work at home if they do not have access to the Internet.

MODULE 1   PLANNING TO USE ICT TO SUPPORT TEACHING AND LEARNING

REFLECTIVE REPORT

(Word limit 900-1200 words)

I felt that the planning of the learning session was not only the most important, but also the most difficult. There are eight members who make up our 'ICT across the curriculum' team, led by me and we all have similar skills and areas of expertise. So there was much negotiation to see which department could make best use of my support time. The next stage was for me to identify the curriculum area and to help identify this, I spoke to different heads of department. Maths, English as a Second Language and History showed the most enthusiasm. In the end, I chose History as there is an enormous amount of History-related resources available on the Internet.

I also realised that we could easily incorporate aspects of ESL into various multimedia clips. There then followed two weeks of careful planning - I had to ensure that the completed resource would be of use not only to the class teacher, but also by the learners in a whole group situation. The main purpose of the resource was to narrow down and clearly focus learners' opportunities for accessing relevant support material for project work. The HoD of History had previously expressed concern that open access to the Internet for this material was slowing down production of coursework but upon investigation, this was more to do with a faulty connection in his classroom. We therefore came to the decision to move the group to an ICT suite for a period of four weeks so I took responsibility for booking this.

Following the planning activity, I set off to manage the session with the class teacher. This involved the examination of some known URLs that were trialled with small groups of learners. In order for us to get this right we had to understand the curriculum area's learning aims and objectives before we could suggest an ICT solution for the HoD. In addition, we had to take into account the ICT skill level of the learners who would be using the resource and ensure that the finished presentation would not take too long to put together, yet would retain interest and motivation or the pupils. I considered the layout of the ICT suite where these resources would be used and gave further consideration to the fact that the class teacher would eventually be using an interactive whiteboard for demonstrations to the whole group back in his own classroom.

Further, I trialled some of the digital media we would be using to ensure that their interactive properties would be fully utilised. The one aspect of the management that I constantly had to test was the verification of hyperlinks that we thought about including as a differentiated activity for higher ability learners. Having planned and managed this learning session, the class teacher and I feel as a team that the resource is likely to have a major impact upon facilitating learners' progress through their coursework for History. Whilst it would have been possible to create a set of paper-based materials that the learners could refer to, this would not have had the same impact nor engaged the whole class in the same manner as the interactive resource. As further proof, the resource was also tried with a whole class of disaffected learners who previously had difficulty in carrying out research-based activities using standard resources. The difference in attitude and performance was amazing but we are mindful of the fact that subsequent interactive resources need to be more carefully differentiated and display less information to a page. To further support our findings, we plan to make the resource available to two other schools in the area and see if this work can be expanded even further.

One other aspect of this work is that I have to give a full report back to the 'ICT across the curriculum' team as they are keen to see whether this kind of support will be of benefit to their own departments. This could have an important say in how I might be employed in the future.

Additional evidence

Please use this space for any additional evidence you wish to submit:

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INTERNATIONAL EXAMINATIONS

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TEACHING WITH ICT

MANAGING THE USE OF ICT IN TEACHING AND LEARNING

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Date of Submission					
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CIE Unique Candidate Identifier										
Centre No					Year		Cand. No.			Check Digit
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Candidate Name
TAM O'CALLAGHAN

MODULE 2   MANAGING THE USE OF ICT IN TEACHING AND LEARNING

Context

Please give **brief** information about **your** context

(approx **200** words)

Your personal experience

I've been teaching for 3 years. I gained a BsC in ICT with Education at Sunderland University in the UK. My first year in teaching was in London in a large inner city school. I soon discovered that I enjoy working with children of all nationalities and decided I would really like to work abroad. Since then I've been teaching at this International School. During my teacher training, I investigated how ICT could raise standards in teaching and learning. I also increased my familiarity and expertise with various software packages and have since helped colleagues to integrate ICT into their teaching. I'm still very excited by this opportunity and I'm lucky to be in a school with first class ICT resources. This is one of the main reasons why I chose to come and work here. Because I come from the UK, I have many friends who did the same course as me and are still teaching there. So I regularly keep in touch with them via email and we're able to swap ideas and talk about what is good and bad about ICT in the classroom. I think keeping in touch and sharing practice with teachers elsewhere is really helpful.

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MODULE 2   **MANAGING THE USE OF ICT IN TEACHING AND LEARNING**

Step 1   **Managing the use of ICT in supporting whole group teaching**

OCCASION 1

(Word limit : 400-600 words)

Target audience eg level, phase, age

A group of 20 eleven/twelve year old pupils.

Planned activity that uses ICT

Using the Internet to research information about Ancient Egypt then produce a Powerpoint presentation.

Type of ICT resource used

Internet and Presentation software together with digital media and LCD Projector.

Your rationale for arrangement of ICT resources

I had no input into the arrangement of the resources as we were using one of the specialist ICT suites in the school and the PCs are fixed to benches as they are networked.

Explain the learning materials you prepared eg source, design, function

I produced a worksheet that had information about different search engines. I also produced a worksheet that listed some useful URLs to help the pupils make a good start on the project. There were also 'help sheets' available on the intranet that reminded pupils how to copy and paste text and pictures to their own user area on the school server.

Describe the ICT resources you used and the technical skills you demonstrated

We all used Pentium 4 1.8 PCs that each had broadband connection to the Internet. None of the PCs had built in CDRW so I had to arrange for one to be connected to another PC. This meant that pupils then had to log on to this workstation in order to access their files and save onto a CD. At the start of the lesson I demonstrated to pupils how to cut and paste document and also how to print out selected text. I showed the higher ability pupils how to insert smaller sections of text and photographs into Powerpoint and also how to animate the slides.

Review how the use of ICT affected the organisation and management of the session

The History teacher who was working with me was quite surprised to see different groups of pupils getting on with different activities. This was a big change to what he was used to doing - working with whole class at once. I think he saw how my role became more of a facilitator rather than an instructor. This appeared to be a massive change for him in the way teachers can get the most out of pupils by having a number of activities going on at once in the classroom. He was even amazed to see one boy who usually did nothing in most History lessons really enthusiastic and trying so hard! All the pupils were quite happy to find things out for themselves. The higher ability pupils just needed the odd checking each lesson, the middle ability pupils needed a little bit more support from me and the History teacher.

WHOLE GROUP TEACHING

OCCASION 1

ARRANGEMENT OF ICT RESOURCES

INSERT A SKETCH DRAWING, PHOTO OR PLAN

Here is a photograph of what the ICT suite looks like

These computers are arranged on islands so that it's easy to set up different groups to work on common activities. The only problem with this room is that it's difficult to see all of the pupils when it's full. There's no central work area like there is in one of the other suites so space is a little bit limited here. There is a teacher PC but no fixed interactive board. There is a mobile board and projector in one of the other suites that I can wheel into here.

WHOLE GROUP TEACHING

OCCASION 1

EXAMPLE OF LEARNING MATERIALS

THIS SHOULD BE AN EXAMPLE OF THE MATERIALS THAT YOU HAVE PRODUCED FOR USE WITH THE GROUP OF LEARNERS eg A WORKSHEET

http://www.ancientegypt.co.uk/menu.html

http://www.si.umich.edu/CHICO/mummy/

http://www.iwebquest.com/egypt/ancientegypt.htm

http://www.ancient-egypt.org/

http://www.carnegiemuseums.org/cmnh/exhibits/egypt/

http://www.newton.cam.ac.uk/egypt/

http://members.aol.com/Donnclass/Egyptlife.html

http://eawc.evansville.edu/egpage.htm

http://www-oi.uchicago.edu/OI/DEPT/RA/ABZU/DEATH.HTML

http://www.ancientegyptmagazine.com/

http://emuseum.mnsu.edu/prehistory/egypt/history/history.html
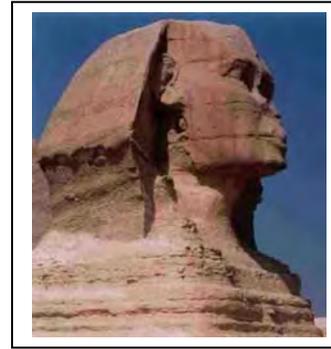
Please be selective when you examine these sites.
Make sure that you only identify the specific item
you have been given to look for!

Cut and paste relevant information to your own user area.

MODULE 2 **MANAGING THE USE OF ICT IN TEACHING AND LEARNING**

Step 1 **Managing the use of ICT in supporting whole group teaching**

OCCASION 2

(Word limit : 400-600 words)

Target audience eg level, phase, age

A group of 25 eleven year old pupils in an ICT skills lesson.

Planned activity that uses ICT

Learning how to send email using Microsoft Outlook.

Type of ICT resource used

Pentium PCs with Microsoft Outlook connected via Broadband.

Your rationale for arrangement of ICT resources

The resources were fixed in another ICT suite and could not be re-arranged but the settings were satisfactory.

Explain the learning materials you prepared eg source, design, function

I produced a worksheet for the pupils that gave basic information on how to use Outlook.

Describe the ICT resources you used and the technical skills you demonstrated

We used Pentium 4 1.8 PCs that were connected to the Internet using Broadband. I had to set up email accounts for each pupils before the lesson. I had to demonstrate to the pupils how to send single emails, copies, forwards and attachments.

Review how the use of ICT affected the organisation and management of the session

When I came to planning this activity I forgot that I needed to set up individual accounts on different PCs because we were not using web-based email accounts. As I set these all up on the one PC, this meant that pupils could not access their accounts from any machine that they sat at. I quickly had to go around all of the other machines and set up individual POP accounts. This still took me 30 minutes and spoilt the lesson slightly. As a result, the pupils became a little restless and this made the lesson harder for me in the end.

WHOLE GROUP TEACHING

OCCASION 2

ARRANGEMENT OF ICT RESOURCES

INSERT A SKETCH DRAWING, PHOTO OR PLAN

This is what the other ICT suite I used looks like.

The computers go around the outside of the suite and there are tables in the centre for work to be done away from the machines. There's also an interactive whiteboard near the teacher's desk (out of the picture). The projector is fastened to the ceiling and the plug in box for the video and audio is near the teacher's computer.

EXAMPLE OF LEARNING MATERIALS

THIS SHOULD BE AN EXAMPLE OF THE MATERIALS THAT YOU HAVE PRODUCED FOR USE WITH THE GROUP OF LEARNERS eg A WORKSHEET

Using Outlook Express
How to send an E-mail (Basic Information – Lesson 1)
When you first click on Outlook Express, this is what you will see :
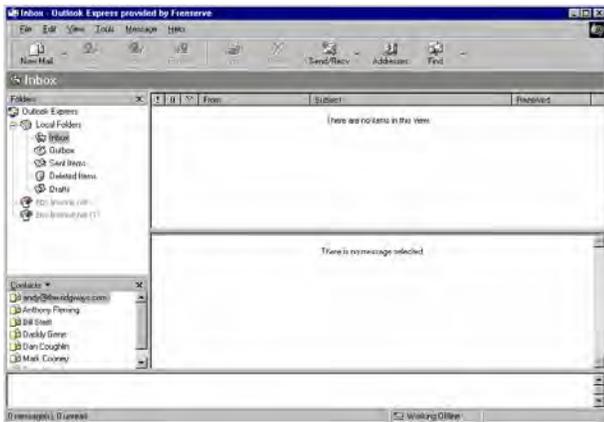
The screen is divided up into sections and there are also pull down menus along the top.

The first thing you should do is to click on MESSAGE followed by NEW MESSAGE.

This will bring up a new box into which you should give details.

Begin by typing the e-mail of the address you wish to send the message to in the TO: section, for example :

Tam.Ocall@FFIS.net

Next, you should give your message a subject in the SUBJECT section, for example :Now begin to type your message in the large white box until you are finished.
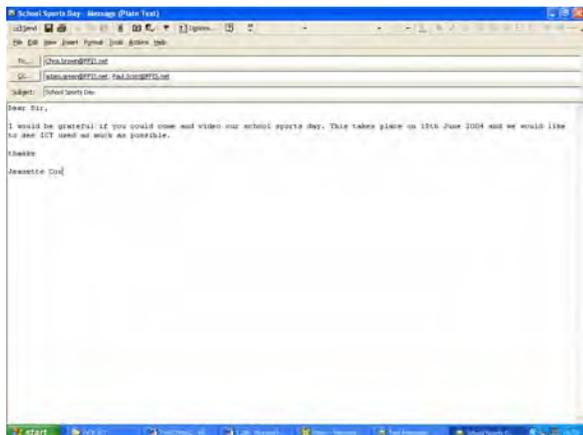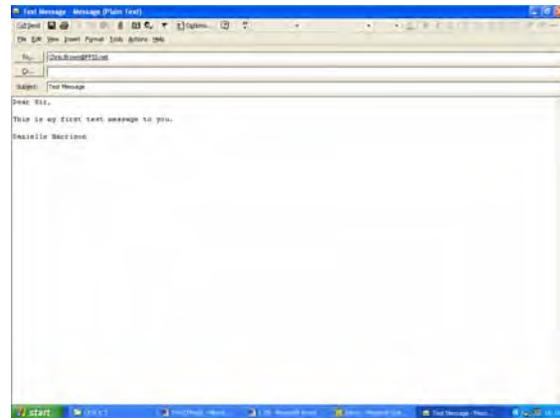
All that is left for you to do now is to click on the SEND button at the top of the screen.

If you wanted to send a copy of this message to other people at the same time, you could add their e-mail addresses in the cc box. This means 'carbon copy'.

Task : Now try to send messages to others in the group. Use the email addresses which your teacher has given you for this exercise.

MODULE 2   **MANAGING THE USE OF ICT IN TEACHING AND LEARNING**

Step 2   **Managing the use of ICT in supporting individual learning**

OCCASION 1

(Word limit : 400-600 words)

Target audience eg level, phase, age

A group of 6 thirteen year old high ability pupils in a Biology lesson.

Planned activity using ICT

Using digital microscopes to investigate the wing structure of insects.

Type of ICT resource used

Pentium 4 1.8 PCs and three USB Intel Digital Microscopes.

Your rationale for arrangement of ICT resources

This lesson was carried out in the Biology laboratory where there were already three PCs available to the pupils. Each of the PCs had a microscope connected to it. The equipment was placed at the back of the classroom so that all of the wires etc did not raise any health and safety issues. The last thing I wanted was to see an accident in a room where there were already lots of things on display.

Identify how work carried out using ICT will be integrated with work carried out without the use of ICT

The findings of this small, high ability, group will be made available to a larger group later in the term as photocopies of A4 pictures will be produced for analysis (there are only 3 microscopes in the school).

Support you provided to learners in using ICT and developing their ICT skills

I demonstrated to pupils how to load the microscope software and how to adjust settings on the device. I demonstrated the effects of top and bottom lighting, how to save images to disk, how to title and change image size. I also provided a pupil guide to using the microscopes.

Identify the ICT skills you employed

Getting the PC to accept the software and recognise the devices via the USB ports. Adding the microscope quick start buttons to the desktops. Placing electronic version of pupil guides into common user area. Demonstrating to pupils the key features of the software and how to place insects correctly for magnification.

Identify the ICT skills the learners employed

Selecting correct magnification to suit image size, using correct type of lighting depending upon density of insect, saving images to disk, adding titles to images, cutting and pasting images into a Powerpoint presentation.

List ICT-based activities you monitored and any intervention you made to support learner's progress

The main ICT activities I monitored were ensuring that the correct focus had been chosen for the magnification. Some pupils were not achieving a sharp enough image. Some pupils had only stunned insects and as a result of their movement, went quickly out of focus. At this point I intervened. I also monitored the image size that was being recorded on the school server to ensure consistency (in preparation for the Powerpoint presentation). One pair of pupils wanted to add sound files to the

images and began to spend too long on this and had to be moved on - this was not part of the original activity but had there been longer, would have been a useful addition to the project.

Additional skills learners developed through using ICT, if appropriate

Working in pairs and coming to agreed decisions on viewing angles, magnification and titles - communication skills, taking responsibility for classification of insects to avoid repetition.

Review the impact of the use of ICT on how you organised and managed teaching

Without question ICT has had a major impact on the learning of these individual pupils. The use of the digital microscopes has been invaluable as they have motivated the pupils, raised levels of expectation, provided crystal clear images and helped to encourage groupwork. All of these features have made the teaching of the topic extremely easy and has allowed me to act as a facilitator and temporary team member rather than instructor all of the time.

Obviously the small group has also made the management of the activity so much easier too but it is really the ease of use of the ICT resources that has contributed more to this. All in all, I think that this kind of activity should also be possible for larger groups and with careful management could actually be achieved. I'm now thinking of setting up ICT 'islands of activities' so that small groups can move around the classroom investigating different things. This will have an effect on the institution however as it will raise the question of funding for additional resources that will need to be justified at some point to senior managers.
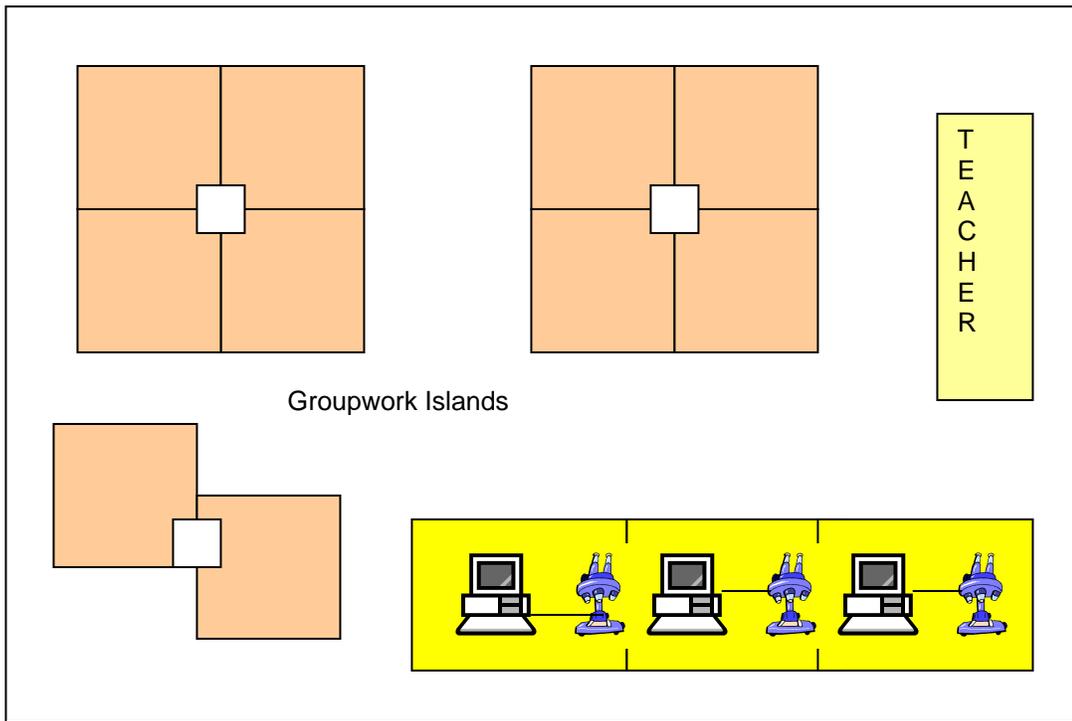
INDIVIDUAL LEARNING

OCCASION 1

ARRANGEMENT OF ICT RESOURCES

INSERT A SKETCH DRAWING, PHOTO OR PLAN

This is how the Biology lab was set up with the three workstations and computer microscopes.

Biology Lab

Groupwork Islands

These three computers are connected to the school's network but the software for the digital microscopes is only installed in this lab (we don't have site licence).

INDIVIDUAL LEARNING

OCCASION 1

EXAMPLE OF LEARNER'S WORK

THIS SHOULD BE AN EXAMPLE OF WORK THAT HAS BEEN PRODUCED BY A LEARNER USING THE LEARNING MATERIALS THAT YOU HAVE PREPARED.

THE WORK SHOULD BE CORRECTLY LABELLED SO THAT IT IS OBVIOUS THAT IT HAS BEEN PRODUCED BY THE LEARNER.

THE EVIDENCE COULD CONSIST OF SCREEN DUMPS, PHOTOGRAPHS, SCANNED IMAGES OR DOCUMENT ETC
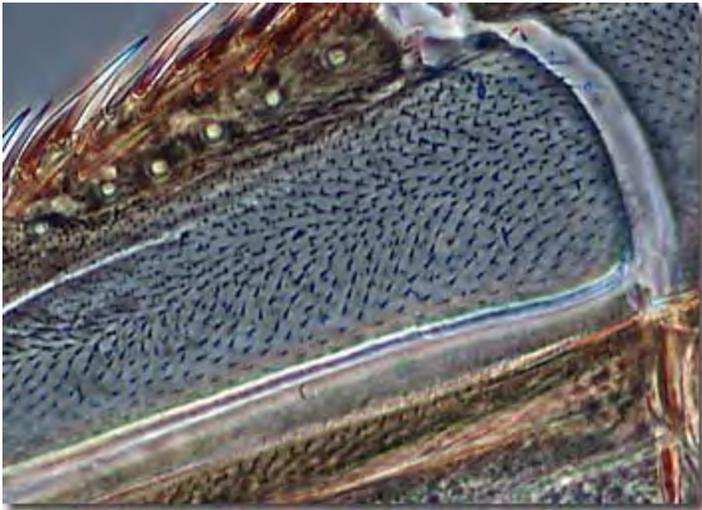
This is a picture of the bees wing with the bottom light on the microscope.
I took it on the highest setting.
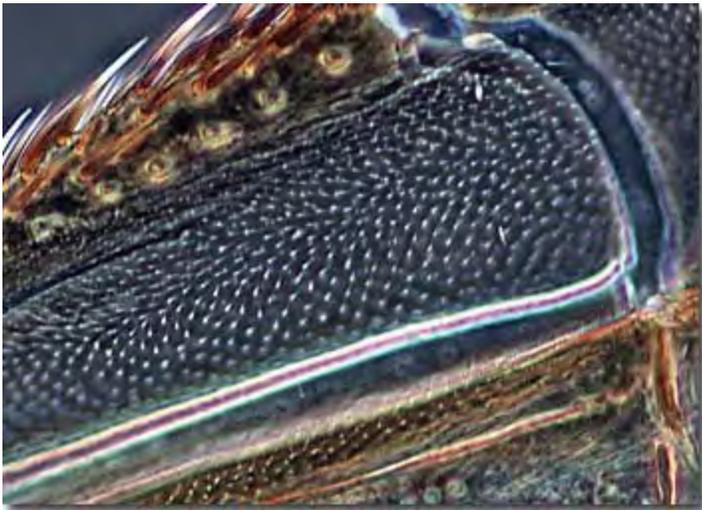
This time I used the top light because it showed me a diffent type of pattern for the same wing of the bee.

Maylin Hasunta

MODULE 2 **MANAGING THE USE OF ICT IN TEACHING AND LEARNING**

Step 2 **Managing the use of ICT in supporting individual learning**

OCCASION 2

(Word limit : 400-600 words)

Target audience eg level, phase, age

Two adult members of the English Department.

Planned activity using ICT

Learning how to create a Powerpoint presentation and connecting a LCD projector to a PC.

Type of ICT resource used

Pentium 4 1.8 PC with Microsoft Powerpoint, Sanyo 1200 lumens projector (mobile) and screen and a Canon A4 flat bed scanner (to capture existing texts and images).

Your rationale for arrangement of ICT resources

There was no particular rationale for the arrangement of the ICT resources as once the teachers had developed their skills, they would be using the projector in several classrooms whilst Powerpoint is on every workstation in the school as part of our site licences. The training however took place in one of the ICT suites.

Identify how work carried out using ICT will be integrated with work carried out without the use of ICT

Over the years a number of teachers have built up their own resources, many of which are on paper files or acetates. Many staff are now keen to create electronic versions of these so that they can 'mix and match' resources into different Powerpoint presentations for different classes.

Support you provided to learners in using ICT and developing their ICT skills

I showed the two members of staff how to scan an image using a flat bed scanner then save this to disk. I then demonstrated how to scan text into a word processor for editing, also using the scanner. An introduction to creating slides (without animation) using Powerpoint was given together with instructions on how to connect a LCD projector to a PC by following the correct sequence.

Identify the ICT skills you employed

How to check that relevant software was installed (with reference to the flat bed scanner), connecting a projector to a PC and identifying correct input mode and signal, creating slides within Powerpoint.

Identify the ICT skills the learners employed

All of the above together with capturing images on a scanner, saving scanned images to own user area, re-ordering slides in a presentation, running a slide show, printing out slides with 'notes' pages, adding a basic background style to the presentation from a given choice.

List ICT-based activities you monitored and any intervention you made to support learner's progress

There were two activities that I had to closely monitor. The first was the use of the flat bed scanner as both teachers had difficulty in selecting the correct scan mode depending upon the resource being scanned. I had to intervene and give further guidance about the difference between JPG and BMP picture formats and why text had to be scanned in a totally different format so that it could be edited

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within a word processor. The second activity that I had to closely monitor was the actual connection of the LCD projector to the PC. One teacher powered up the projector first and this failed to locate the PC's signal. I then had to intervene and explain the use of the 'function and f5' buttons on the keyboard in order to 'toggle' between displays.

Additional skills learners developed through using ICT, if appropriate

Having to concentrate HARD! I discovered that it is more difficult trying to teach adults than it is younger students because adults either don't listen or think they already know what to do and lack patience. As both these teachers were from the same department however, I believe that they developed their skills together and so are now in a much better position to support each other without further support from me. For both of these teachers, they had developed a whole new set of ICT skills and as a result, had become highly motivated and gained enough confidence to try this out in the classroom with pupils!

Review the impact of the use of ICT on how you organised and managed teaching

It helped greatly that I was working with only two adults for this activity. They really wanted to develop new ICT skills and because they were fellow colleagues, I was able to keep the actual teaching on an informal level to suit the times (mainly lunchtimes) when the training could take place. The only organisation I had to carry out was checking that one of the ICT suites was free and that the flat bed scanner was not being used. The LCD projector was already a fixture in the classroom I was using together with the screen (although in reality this was an electronic whiteboard but I did not use this function!) I found that as computer clubs were held by other staff, I had to fit around this. I could have taken the two staff elsewhere but felt that the familiarity of the one classroom for now was probably the best environment for them to work in - I didn't really want to start introducing new problems with potential incompatibility of software in other classrooms.
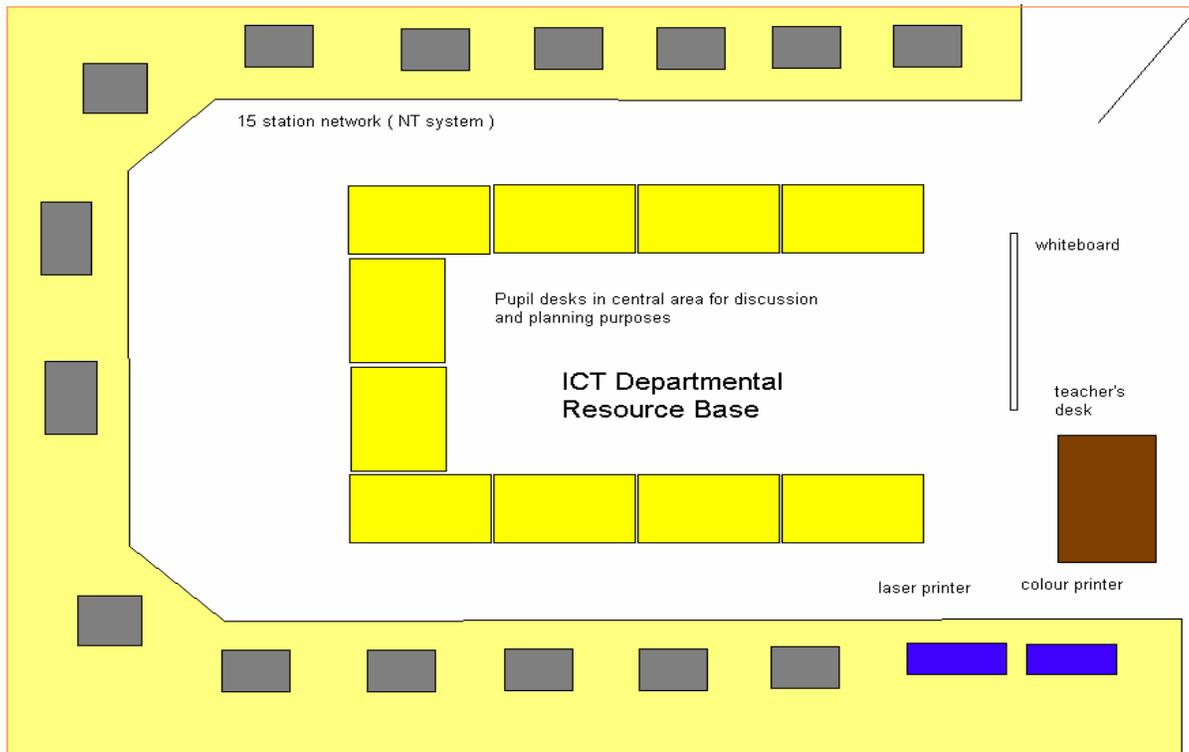
INDIVIDUAL LEARNING

OCCASION 2

ARRANGEMENT OF ICT RESOURCES

INSERT A SKETCH DRAWING, PHOTO OR PLAN

This is what the ICT suite looked like where I trained two English teachers over 4 lunchtimes.

15 station network (NT system)

Pupil desks in central area for discussion and planning purposes

ICT Departmental Resource Base

whiteboard

teacher's desk

laser printer   colour printer

This ICT suite has this layout for the following reasons:

- There is a central area so that formal teaching and discussion can be carried out easily in this room.
- The computers are placed around the outside of the classroom to maximise space and allow for freedom of movement between the formal teaching area and the practical activities.
- The printers are located after station 15, near to the teacher's desk so that they can be managed more easily and observation of printouts produced more closely monitored.
- A large room has been used so that up to 30 pupils can be arranged into whole, small group or individual work patterns.

INDIVIDUAL LEARNING

OCCASION 2

EXAMPLE OF LEARNER'S WORK

THIS SHOULD BE AN EXAMPLE OF WORK THAT HAS BEEN PRODUCED BY A LEARNER USING THE LEARNING MATERIALS THAT YOU HAVE PREPARED.

THE WORK SHOULD BE CORRECTLY LABELLED SO THAT IT IS OBVIOUS THAT IT HAS BEEN PRODUCED BY THE LEARNER.

THE EVIDENCE COULD CONSIST OF SCREEN DUMPS, PHOTOGRAPHS, SCANNED IMAGES OR DOCUMENT ETC
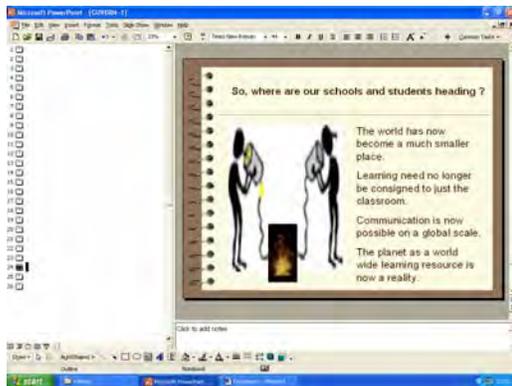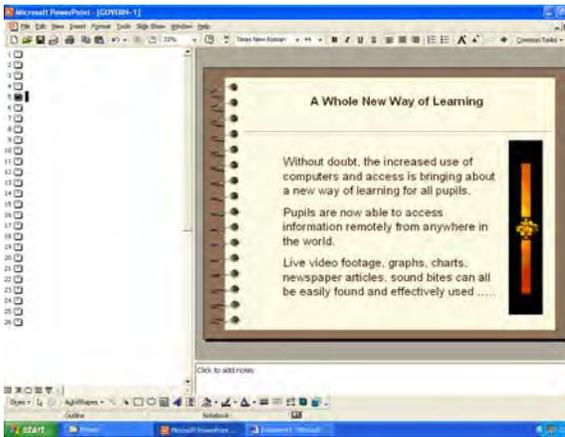
These are examples of Powerpoint slides that were created from scanned images and 'cut and paste' from the Internet by Caroline Liddle and Colin Dennison – two members of the English Department.

MODULE 2   MANAGING THE USE OF ICT IN TEACHING AND LEARNING

REFLECTIVE REPORT

(Word limit : 900-1200 words)

Prior to the delivery and subsequent management of my teaching activities I took the following actions because I felt that this would make the management of my planned activities a lot easier. I checked that:

- the server was functioning correctly.
- all stations had been closed down from the previous lesson.
- printers had paper in them and were on line.

I logged on at three stations and checked that each program loaded correctly and had the correct printer in its default path.
I carried out a trial printout from each program to ensure it worked.

I also checked that:

- the trip switches were functioning correctly.
- all plugs were secure, no trailing leads etc.
- the room was not too hot and that there was adequate ventilation.
- I had paper, pens, worksheets and all materials ready.
- PCs recognised the digital microscopes.
- the LCD projector was working correctly.

I am the member of staff responsible for helping departments to identify opportunities for using and integrating ICT into their activities. So I believed that it was necessary for me to have carried out aspects of the set tasks so that I would be in a better position to help pupils and teachers when required. I had already used Powerpoint, flat bed scanners and LCD projectors. I had also experienced producing printouts in different formats and knew how to solve 'simple' problems. Nonetheless, I felt it would be very helpful also to have the school's ICT technician on standby to deal with any last minute problems. I think that no matter how well you try your best to manage situations, especially when ICT is being used, not everything goes according to plan.

The next most important thing is to check that you've decided a suitable plan for the delivery of your lesson. This means really knowing what levels of pupils (and teachers!) that you'll be working with. When managing ICT activities, the level of instruction has to be pitched 'just right' so as to maintain interest and enthusiasm whilst avoiding boredom - not so easy! To do this successfully, the teacher needs to have good awareness of individual's ICT skills so ideally; the use of an audit could be helpful here before the activity begins - especially when working with adults. Working recently with the two teachers from the English Department I'm now considering putting together an audit for the whole staff so that I can identify opportunities for everyone on the next couple of years. If the training is managed well, then hopefully 'cascade training' may follow in individual departments but I've found this to be the exception rather than the rule.

I also believe that the use of certain rooms also makes a difference. Whilst we have three ICT suites in the school and most classrooms have at least one computer connected to the Internet, I've found many teachers a little reluctant to leave their own teaching area. There's still a fear of 'too much can go wrong and I will look stupid in front of my classes'. Fortunately this is not true of the pupils who seem to adapt to different rooms and their layouts without any problems at all.

There is also a fine line between allowing pupils to learn independently and intervening. Last year I was

conscious of taking control of a pupil's 'mouse' in order to clarify something. Now, I make a conscious effort to talk pupils through problems rather than 'do it for them'. I have since found that this method helps pupils to retain the ICT skills they have developed and this certainly helps the subsequent management of my lessons. It's much harder for other (non ICT specialist) teachers to do this however either because they don't have the confidence, expertise or patience. I realise now that this only develops over time.

Possibly one of the hardest and most challenging things that I have to do is to convince staff when it is appropriate and not appropriate to use ICT in the classroom. This is not always easy because many staff do not yet have the confidence to manage the ICT activity themselves without me being in the classroom to give them support. This further highlights the need for whole school training but will impinge upon teachers giving of their time, my availability, regular use of an ICT suite and the commitment of the Principal and Management Team to support the staff. Potentially, there is a knock-on effect here because teachers who develop their ICT skills sufficiently will very much be in demand by other schools and could gain promotion to a rival institution! At least over the last two years, pupil skill and confidence has increased dramatically to the point where they are now suggesting to their teachers that 'this would be better using ICT' so many teachers can't really avoid integrating new technology into their work anymore.

As for myself, I'm very pleased with the opportunities for my own professional development that this post gives me. I enjoy working with both pupils and staff and I feel that I may be able to act as an ICT consultant across a number of schools in the not too distant future. Apart from developing my own ICT skills I'm also developing key skills in working with many different audiences and trying to approach problems from many different viewpoints. The increased use of ICT in my work has also helped me greatly to change how I deliver mathematics - my main subject. It's clear to me that ICT is beginning to have a huge impact and influence on both pupils and teachers at this school and will do much to help raise standards in teaching and learning.

Additional evidence

Please use this space for any additional evidence you wish to submit:

CAMBRIDGE
INTERNATIONAL EXAMINATIONS

CAMBRIDGE INTERNATIONAL DIPLOMA IN

TEACHING WITH ICT

EVALUATING THE EFFECTIVENESS OF ICT IN TEACHING AND LEARNING

By completing this form and submitting the assignment for assessment by CIE I confirm that the assignment is all my own work. I have appropriately referenced and acknowledged any work taken from another source.

Date of Submission					
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CIE Unique Candidate Identifier										
Centre No					Year		Cand. No.			Check Digit
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Candidate Name
TAM O'CALLAGHAN

Context

Please give **brief** information about **your** context

(approx **200** words)

Your personal experience

I've been teaching for 3 years. I gained a BsC in ICT with Education at Sunderland University in the UK. My first year in teaching was in London in a large inner city school. I soon discovered that I enjoy working with children of all nationalities and decided I would really like to work abroad. Since then I've been teaching at this International School. During my teacher training, I investigated how ICT could raise standards in teaching and learning. I also increased my familiarity and expertise with various software packages and have since helped colleagues to integrate ICT into their teaching. I'm still very excited by this opportunity and I'm lucky to be in a school with first class ICT resources. This is one of the main reasons why I chose to come and work here. Because I come from the UK, I have many friends who did the same course as me and are still teaching there. So I regularly keep in touch with them via email and we're able to swap ideas and talk about what is good and bad about ICT in the classroom. I think keeping in touch and sharing practice with teachers elsewhere is really helpful.

Your role and responsibilities

I teach Mathematics in the lower school and I'm also responsible for managing ICT across the curriculum. I'm assistant to the Head of ICT, but my main role is to co-ordinate and support the use of ICT across all curriculum subjects, particularly for pupils between 9 and 13 years old. I regularly meet with a team of teachers once a month and we plan together where ICT might be used to enhance teaching and learning. I also offer in-service training sessions to colleagues one evening each week after school. This mainly covers the use of generic software, mainly Microsoft. We also look at curriculum software reviews and do our own.

Your institution

This is a medium size International School. There are 375 pupils, with parents who are mainly in diplomatic service and international business. Most of the students stay for three years but quite a few only stay for twelve months. We have excellent ICT resources here including 3 dedicated ICT rooms. Nearly all classrooms have access to the Internet.

Your learners

The students are aged from 9 to 18 but I mainly work with the 9 to 13 age range. They are of mixed nationalities and abilities. Most have English as their main of second language. The use of ICT is very helpful here, especially to the students are not able to stay very long. In fact, many students who move on to other countries are still able to access some of the work they have done here.

MODULE 3   EVALUATING THE EFFECTIVENESS OF ICT IN TEACHING AND LEARNING

Step 1   Evaluating the effectiveness of ICT in supporting whole group teaching

LEARNING SESSION 1

(Word limit : 200-400 words)

Target audience eg level, phase, age

A group of 20, eleven year old, mixed ability pupils in a History lesson.

ICT resource chosen

The Internet, Powerpoint and LCD projector.

Subject content of the learning session that used ICT

To research information into Ancient Egypt. Each pupil was a given a specific area to investigate, eg Kings, Mummies, Pyramids etc.

Evaluate how far the use of ICT contributed to meeting specified learning outcomes

The use of ICT increased motivation, enthusiasm and interest throughout the sessions. In addition, the use of ICT facilitated study beyond the normal lesson because independent study was encouraged and some pupils continued with their research from home. The use of ICT also stimulated the class teacher and encouraged him to look for similar opportunities for research in subsequent lessons eg using webquests.

Compare how the learning session worked out with how a non-ICT learning session might have operated

In the time that we had (four weeks) the group would not have been able to research as much information from non-ICT sources (eg school reference books etc). A non-ICT based lesson would not have been able to put a presentation together so quickly or would have been able to make it available to other classes in a format that was as accessible.

Outcomes which would not have occurred without the use of ICT

The creation of an informative database of knowledge about Ancient Egypt, available on the school network for the History department that can be edited and added to over time. The opportunity for pupils to engage in independent learning and take responsibility and ownership of the project.

Identify and review **one** benefit to you as teacher of using ICT, if benefit(s) experienced

Being able to act as a facilitator rather than 'teacher'. This allowed me to work with individuals within the group much more easily and target support to those who needed it the most.

Identify and review **one** benefit to your learners of using ICT, if benefit(s) experienced

Being able to continue with the research outside of the normal History lesson. This provided opportunities for encouraging independent learning and enquiry - the desired learning outcomes of the History teacher.

Identify and review **one** disadvantage to you as teacher of using ICT, if disadvantage(s) experienced

As this activity was planned well in advance - there were no disadvantages experienced!

Identify and review **one** disadvantage to your learners of using ICT, if disadvantage(s) experienced

A small number - 7 - of the 20 pupils who did not have Internet access from home. This meant that

their research was a little limited compared with their peers.

Identify any improvements that could be made for future learning sessions

I think that for future sessions I will suggest that pupils work in pairs rather than as individuals for the research activity. The amount of information that pupils sourced from the Internet was vast and it became very difficult to narrow this down in the time that we had. I also feel it would be wise to pair pupils that don't have home access to the Internet with those that do so all pupils then feel that they have played their part. It would also be helpful to have up to two pupils as Powerpoint editors so that they can begin to put the presentation together as soon as the information has been examined and accepted by the group.

MODULE 3   EVALUATING THE EFFECTIVENESS OF ICT IN TEACHING AND LEARNING

Step 1   Evaluating the effectiveness of ICT in supporting whole group teaching

LEARNING SESSION 2

(Word limit : 200-400 words)

Target audience eg level, phase, age

A group of 25 eleven year old pupils in an ICT skills lesson.

ICT resource chosen

Microsoft Outlook.

Subject content of the learning session that used ICT

The pupils were learning how to compose emails using Outlook as well as how to forward, how to send messages to more than one person, attach documents and create an email address book.

Evaluate how far the ICT resource chosen met expectations

There was no other choice than to use Outlook as this is the school's standard email program. It would have been better from the pupils' point of view to have used a web-based email system such as Hotmail but the school web filtering did not allow this.

Evaluate how far the use of ICT contributed to meeting specified learning outcomes

All of the learning outcomes were achieved using this resource.

Compare how the learning session worked out with how a non-ICT learning session might have operated

Whilst it would have been possible to teach a theory lesson without the use of computers, pupils would not have been able to experience the realities of emailing one another. The use of a non-ICT resource was therefore never a real possibility.

Outcomes which would not have occurred without the use of ICT

Opportunities to email one another, attach documents, forward emails and send to more than one recipient.

Identify and review **one** benefit to you as teacher of using ICT, if benefit(s) experienced

I could demonstrate key skills to the pupils using the interactive whiteboard and involve key pupils into a one-to-one exchange of emails for the rest of the class to see.

Identify and review **one** benefit to your learners of using ICT, if benefit(s) experienced

The pupils could see straight away the effects of what they were learning. This provided instant feedback to the pupils, reinforced learning and instilled confidence.

Identify and review **one** disadvantage to you as teacher of using ICT, if disadvantage(s) experienced

Because we were obliged to use Outlook, I had to ensure that email accounts were set up on each workstation before the lesson began. I also had to ensure that pupils sat at the workstation where their email profile address had been installed. The web filter on the school's network prevented me from using a web-based email provider.

Identify and review **one** disadvantage to your learners of using ICT, if disadvantage(s) experienced

Pupils had to take responsibility for setting up their own email profile on other stations in order to read their school email accounts from places in the school other than the ICT suite we were using. In addition, some of these younger pupils were unable to access their email accounts from home as they did not have a direct link into the school's email server or write permissions.

Identify any improvements that could be made for future learning sessions

If the school would allow access to web-based email providers then pupils would be able to have access to their accounts from anywhere in the world. This is what I would prefer to see for future learning sessions but it will require a management decision in order for this to happen.

MODULE 3   EVALUATING THE EFFECTIVENESS OF ICT IN TEACHING AND LEARNING

Step 2   Evaluating the effectiveness of ICT in supporting individual learning

LEARNER 1

(Word limit : 200-400 words)

Describe assessment criteria you employed to ensure progress and achievement were accurately identified

Each pupil was given a checklist that detailed how their work would be assessed. The pupils worked in pairs and had opportunities for assessing each other's findings against the checklist. Each pupil was also given information regarding the size of image that had to be recorded in a specific format so that it could be used in other programs within science. As a support teacher to this small group and the science teachers, I was able to monitor progress and intervene where necessary.

Evaluate the impact of using ICT on individual progress and attainment

The use of the digital microscopes introduced a challenge to the group of producing the most clear and detailed image under the best lighting conditions. This motivated individuals further and they were later able to recognise the limitations of the chosen resource compared with more professional devices that could be found in a laboratory.

Evaluate the impact of the using ICT on the process and product of learning activity

None of the pupils were aware that it was possible to use digital microscopes in a Science lesson before this activity began. Some were aware of the macro facility on a digital camera but they were all amazed when they saw what the microscopes could produce for their cost compared with cameras. Most of the pupils were stimulated to investigate other objects and were particularly keen to investigate time-lapse photography with seeds when the insect activity finished.

Outcomes which would not have occurred without the use of ICT

The production of detailed wing structure patterns examined at first hand rather than observed in text books. The effect of varying light and magnification combined to produce different images.

Identify any improvements that could be made for future learning sessions

Introducing this type of resource into the Science lesson has caught the imagination of the pupils but as indicated earlier, they were quick to identify the limitations of the device. Ideally, I would like to offer pupils the opportunities of using more professional equipment but this will require me to source its location and availability. I would be interested in looking into video conferencing with the local universities and museums so that the pupils could 'instruct' a scientist to explore these types of investigations but from a distance. We don't have video conferencing facilities yet however so this is something else either I or the HoD ICT needs to take up with the senior management of the school. Hopefully, the excellent work these pupils have produced will help us to justify this request but at the end of the day, ICT is seen by the school as just one subject among many!

MODULE 3   EVALUATING THE EFFECTIVENESS OF ICT IN TEACHING AND LEARNING

Step 2   Evaluating the effectiveness of ICT in supporting individual learning

LEARNER 2

(Word limit : 200-400 words)

Describe assessment criteria you employed to ensure progress and achievement were accurately identified

There was no formal assessment criteria other than direct observation and support for the two colleagues that I was working with. If anything, the ability of my colleagues to produce a professional looking Powerpoint presentation to others in their department was enough to create effective peer assessment. Both colleagues began the training sessions with little or no previous knowledge so their level of personal achievement and progress was rapid.

Evaluate the impact of using ICT on individual progress and attainment

The use of ICT impacted upon my colleagues by challenging them to increase their own ICT skills as well as improving their knowledge of putting together effective presentations for different audiences - a key skills that pupils are often assessed in. The use of ICT in reality meant that rapid progress was taking place in a very short space of time.

Evaluate the impact of the using ICT on the process and product of learning activity

I had some concern about how ICT might be masking attainment. Whilst they were with me my colleagues were developing their skills, but both of them failed to develop their skills between formal instruction. This meant that each session I had to remind them about what we had done to date. I hadn't expected this as there was plenty of opportunity around the school to reinforce what had been learnt during the week.

Outcomes which would not have occurred without the use of ICT

Understanding of how to create a simple electronic presentation that includes pictures, sound and a chosen background style from a given list. How to connect a computer to a LCD projector.

Identify any improvements that could be made for future learning sessions

If working with similar colleagues in the future, and this is highly likely, I need to set specific homework activities that reinforce each learning session. I realised that I trusted my colleagues too much to develop their understanding and as a result, little took place between the sessions. I also think that it would be useful to build into these learning sessions opportunities for colleagues to question and reflect upon what they have done rather than accept what I say each time. Ideally, it would be beneficial to different departments, and to my colleagues, if training could be cascaded without my involvement. This would confirm that real learning has taken place and that my colleagues now have ownership of their new skills and an increased confidence.

MODULE 3   EVALUATING THE EFFECTIVENESS OF ICT IN TEACHING AND LEARNING

Step 3   Evaluating the impact of ICT on teaching and learning contexts

(Word limit : 200-400 words)

Topic of Investigation

Does the availability of specialist ICT suites in a school make a difference to other subjects? In other words, will non-ICT specialised teachers be more interested in using this kind of resource to integrate ICT into their teaching compared with only having a limited number of computers in their classroom?

ICT source(s)

BECTA website in the UK.

Non-ICT source(s)

Direct talking and meetings with colleagues, reference book '*ICT in the classroom - friend or foe?*

Findings, related to past experiences and future planning

Since the creation of the ICT suites, there has been a terrific demand for the use of computers in our school outside of the 'normal' classroom because teachers can now offer pupils their own machine. The History department has worked closely with me and the HoD ICT for the last few months and we all feel that we are making good progress in integrating ICT activities into the teaching of History where it is deemed to be appropriate. The History department is now finding it more difficult to book these rooms for a clear run of three consecutive lessons however as other subjects are beginning to recognise how ICT can be used within their curriculum area. Only a few months ago, the rooms were only half used. The increased use of ICT has brought about more initial work for teachers in the department. Pupils have tended to have greater skills than their teachers and as a result we have had to be on a steep learning curve for the last few months. As the majority of the pupils have acquired basic skills within ICT lessons however, this has freed teachers to concentrate on the content, rather than the skills. With regards to teaching techniques - these have had to change too. It is now possible for many activities involved ICT to be going on in the classroom at the same time, especially within mixed ability classes like the one used for the Ancient Egypt project. This has meant that the teacher has had to concentrate more on the management issues to ensure that the lesson is able to develop and progress with the minimum of disruption. ICT has highlighted the need to become more acutely aware of time management as it is so easy to become 'lost' within a design process. All things considered, I believe the use of ICT to be of enormous benefit to the quality of teaching and pupil learning. This view is supported by helpful information to be found on the BECTA website in the UK and also through the Online supplement of the Times Educational Supplement, published in the UK and also available on-line at www.tes.co.uk One thing that I have discovered though is that whilst more teachers would like to go and use the ICT suites, some are still reluctant because they are scared of having too much technology in the room with them. They don't seem to have a lot of confidence unless I'm able to be there. Sadly, this isn't always possible as I also have to teach maths!

Findings, related to institutional improvements supported by ICT

Because more teachers now want to use the ICT suites, there are things that have to happen here that I am not responsible for. One of these is training. A lot of staff have said that they would like more training on using the suites but that will then depend upon someone like me training them mainly after school. I could do this but the Principal has said that there is no funding to support this or for the

school to bring in an 'outside trainer'. This is very unfortunate as it puts me in an awkward situation. I have decided to ask the Principal if I can be taken off the teaching of maths so that I can spend more time supporting staff in the suite and he is now considering this.

Another problem for the school is the timetabling of the suites because departments now wish to be certain of getting three or four weeks in a row at the same time. In the past, departments have been allowed to book the suites for odd weeks without any structured plans and this will need to change. There is also the question of after school computer clubs because more and more pupils are wanting to use the suites to do their homework in because the resources are so good. In some ways, it seems like the increased use of ICT has increased problems for the school, not reduced them!

MODULE 3   **EVALUATING THE EFFECTIVENESS OF ICT IN TEACHING AND LEARNING**

Step 4   **Using ICT as a tool to enable continuing professional development**

(Word limit : 200-400 words)

Evaluate your current skills, knowledge and understanding of ICT as a resource in teaching and learning

> I feel that I have a very good knowledge of Microsoft programs such as Word, Excel, Powerpoint and Publisher but do not have much experience of using Access. In the past, I used a program called Works and this made mail-merge very easy. We don't have that here unfortunately. I also think that I have a pretty good understanding of when and when not to use ICT in the classroom although my knowledge of using ICT in subjects other than maths, science and history is a little weak.   I realised this after using two audits that I found on the Internet. One asked me questions about my knowledge of ICT in the classroom, the other asked me about my own ICT skills.

Your targets in the next year identified for improving your own practice as a teacher

> From a skill point of view, I need to find out how to use Microsoft Access because a number of teachers have asked me to help them create databases in their subject area and also for their own pupil records database. I intend to reach at least the Cambridge IT Skills standard and will use this as my benchmark target. From a teaching point of view, I need to find out in greater detail what areas of study each department will be covering, with different years, at the start of each term. I'll then need to research into ICT materials that can support these teachers and pupils.

Identify the steps you are going to take to achieve these targets

> For my own skill development I'll look to see if there are any local courses but these would need to be in the English language. If this is not possible, I have heard that there are on-line self-tutorial lessons that you can subscribe to so I'll look into these too. I'll also investigate the Cambridge IT and ICT Diplomas. For the teaching targets, I need to work more closely with individual colleagues. I have decided that twice-termly meetings with a group of teachers from different subjects is not enough. I really need to work with colleagues on a one-to-one basis and help them identify ICT opportunities within their schemes of work. I also need to plan how I can give my colleagues additional support but this is also dependent upon the Principal supporting staff needs. I therefore need to have an early meeting with him to discuss this further.

Identify the ICT resources you will need

> I'll need continued access to the Internet so that I can look for details of local courses and also seek on-line self-tutorial lessons in English. I'll also need access to printers etc but none of these resources will cause me any problems!

Your longer team targets for your professional development and how using ICT might help

> In the future, I would like to do a Microsoft or CISCO technical course so that I can be of more help to other institutions. I then might be able to work across a number of schools as a consultant, possibly self-employed if there is sufficient demand. Alternatively, I would like to do a higher degree but that might mean I have to return to the UK to do this and I then might have to give up this job that I very much enjoy doing. I think that ICT could possibly help me a lot because it should allow me to do distance learning so this is something I'm going to spend this term thinking about and researching. I also think that if I can use ICT to increase my knowledge of teaching then this should also help me to save time and money as I can do things from wherever I choose and at times to suit myself.

Explain how your own professional development in relation to ICT will benefit colleagues and your institution

> I would like to think that as my own ICT knowledge and skills improve, then I will be able to pass this onto my colleagues. I'm not sure though whether my Principal recognises how much I'm really doing

for the staff already and that this ultimately is to the benefit of the school. I guess that if I do manage to increase my own knowledge substantially over the next twelve months then I'll be in a very good position to look for another post - sadly for the school that wouldn't be a benefit to them though! One thing that does seem to happen though is that the school does its best to purchase new software and devices largely through the work that I do and knowledge that I have brought with me from the UK. The electronic whiteboards were a direct result of that.

Complete the following

ACTION	specific step you are going to take to enhance your teaching with ICT
RESPONSIBILITY	who is going to be responsible for making this happen
MILESTONES	how you will know you are making progress
RESOURCES	what you need to help you
MONITORING	who is going to check you are making progress
EVALUATION	how you are going to measure your progress
TARGET DATE	realistic date to complete the action
SUCCESS CRITERIA	how you are going to measure that you have achieved your goal

ACTION	RESPONSIBILITY	MILESTONES	RESOURCES	MONITORING	EVALUATION	TARGET DATE	SUCCESS CRITERIA
Develop knowledge of Access	T O'C	Locate training source, begin training	Internet, on-line tutorials or local centre	HoD ICT	Able to pass Cambridge Diploma	By December 2003	I will be able to support pupils and teachers
Develop knowledge of mail-merge techniques	T O'C	Increase knowledge, trial techniques try in classes	Microsoft Office Suite	HoD ICT	Able to pass Cambridge Diploma	By December 2003	I will be able to support pupils and teachers
Increase knowledge and greater understanding of subject schemes of work	T O'C	3 subjects per term analysis. 4 twilight sessions with key staff per term.	Subject schemes of work	HoD subject areas in lower school	Each department will offer me feedback on my suggestions for using ICT until accepted.	By March 2004	I will be able to decide when and when not to use ICT in other subject areas.
Research opportunities for using ICT in other subject areas	T O'C	Investigate curriculum support websites and UK training	Curriculum websites, BECTA, TES (UK), Virtual Teacher Centre (UK)	ICT across the curriculum working group	More teachers will begin to use the suites and demonstrate confidence.	By July 2004	I will be able to plan ICT opportunities in advance with departments and offer support.

Research CPD opportunities	T O'C	Local course, enrol and begin	Support and funding, time	Deputy Principal	Positive course feedback	By July 2004	Increased ICT knowledge

Use as many rows in the table as applicable - add rows if necessary

NOTES:

Please refer to the detailed audits that I have included as additional evidence at the end of this assignment.

MODULE 3   EVALUATING THE EFFECTIVENESS OF ICT IN TEACHING AND LEARNING

REFLECTIVE REPORT

(Word limit : 900-1200 words)

Over the last year I have worked closely with a number of colleagues from different subject areas and most of the pupils in the lower school. I have helped to organise the delivery of ICT within specialist ICT suites and acted as support teacher within this learning environment. I have come to the conclusion that the use of ICT should not be seen as a 'quick fix' to raising standards in teaching and learning without adequate planning and careful management for the following reasons.

I feel that the planning of the learning session is not only the most important, but also the most difficult. I had formed an ICT group of interested teachers but they all had brought to the table their own ideas on how ICT should be integrated into their subjects and how best I could be used as 'support'. We did all agree that one of the main purposes of ICT was to help develop independent learning amongst pupils so I set off with this as the main objective. In addition, each member of the team had varied ICT skills so I was also aware that I would have to carry out some additional support for my colleagues otherwise I would be left to do all of the work. I decided to trial support with History and Science initially - the former because I felt it provided excellent opportunities for research-based activities and the latter because I was anxious to try out some new resources and they were not used - then future acquisitions would quickly cease.

The planning of ICT activities involves many processes - in particular:

- finding out the skill levels of the people you are working with
- checking that the equipment and software are both working and available
- ensuring that rooms are booked
- considering the learning outcomes of the activity
- appreciating the fact that different pupils have different learning styles and that ICT may actually be a 'turn off' for some!

You also need to ensure that relevant materials are produced and that facilities are available for the storage of work, its assessment and reporting back to identified audiences.

The management of ICT brings about its own set of problems - in particular providing differentiated learning opportunities for pupils as well as working against tight time schedules. I personally found it difficult to provide the right level of support for colleagues so that they were in a position to enhance their own professional development without feeling that I had taken complete ownership of their lesson.

Finally, how does a school effectively evaluate its use of ICT? Measuring impact has different success criteria for different people and much depends on the level at which you are starting from. As an example, two colleagues from the English department I worked with suddenly felt that they could tackle anything put in front of them. A group of mixed ability pupils suddenly developed new insights into learning through structured use of the Internet and their role of teacher became that of guide.

In conclusion, having worked with large groups of pupils and with individuals with different departments, the one aspect of using ICT that all colleagues have picked up upon is that provided the preparation and planning has been well thought out, the actually teaching becomes secondary. For several colleagues, the opportunity to 'stand back' and act as facilitator had given them a new enthusiasm. Certainly some colleagues have amazed themselves by being able to manage different activities going on in the same classroom and this for me is a positive achievement. I think that this should contribute enormously to learning opportunities for our pupils and will help to move the school forward. The school has invested a lot of funding into developing ICT in the last year and we will all need to demonstrate that it has been funding well spent.

Thankfully, the school has recognised my role as a support teacher to other colleagues and allowed me to work 'off timetable' in other departments. This has been excellent for my own professional development but I'm now finding that I'm having increased demands put upon me outside of school hours and there is a high level of expectancy placed upon me that I'm having difficulty in fulfilling. The result is that I don't always get the opportunity to shape my own professional development. This will have to become an issue for the school at some point as there should be an occasion when I can step back from this support. By then of course I may have decided my next career move!

The main question I feel that ALL teachers need to consider is when and when not to use ICT to support teaching and learning. Unless carefully considered, there is a natural tendency to use ICT for all the wrong reasons. I've found that some staff often feel pressurised into using ICT by their Heads of Department or senior management. Some staff are incorrectly informed that ICT will provide this 'quick fix', are enthused by this belief yet fail to realise that their own skill base and knowledge needs to be dramatically increased first. In many cases, no time is set aside for adequate training and as a result, many pupils pick up on the inadequacies of their teachers and the lesson falls apart. There are many implications here not only for individual staff but also for the school as a whole therefore I feel that the development of ICT across the curriculum has to become a whole school issue and recognised as such. Another issue facing the school as a whole is that of communication and surely here, ICT can help with regard to the management of data, assessment, recording, sharing of materials and lesson plans and the ease with which staff and pupils can access resources and share in professional discussions or debates.

ICT has without doubt a lot to offer teaching and learning but it needs to be a whole school effort it is to have any real success.

Additional evidence

Please use this space for any additional evidence you wish to submit:

Copy of audits

Name: | Tam

Date: | 6/5/03

International School BWT
Johnson Avenue
Ammonstow n
2345 MLL

School name and Address:

Bearing in mind your professional ICT needs, please indicate the importance to you of training and/or support in the following areas by selecting the appropriate item from the pop-up menu.

1	Familiarity with the standards as set out in the ITT National Curriculum for the use of ICT in subject teaching	Essential
2	Planning and organisation of classroom ICT	Essential
3	Assessing progress in a subject when ICT is used	Essential
4	Functions and file management on the Windows PC (eg menus, copying, deleting, naming and re-naming files, etc.)	Very Useful
5	Functions and file management on the Acorn (eg menus, copying, deleting, naming and re-naming files, etc.)	Useful
6	The contribution that ICT can make to teaching pupils with special educational needs	Essential
7	How to locate and access sources of help and support for ICT, including the National Grid for Learning	Of Limited interest
8	Wordprocessing skills, *eg using styles and tables,*	Of Limited interest
9	Spreadsheet skills, *eg modelling numeric relationships*	Useful

10	The development of pupls' ICT capability	Essential ▼
11	Searching for information, *on CDROM and/or the internet*, including using key words and strings and logical operators such as AND, OR and NOT, search engines, indexes and directories;	Essential ▼
12	How information can be directly and dynamically linked in and between applications, *eg multimedia presentations, web authoring* ;	Very Useful ▼
13	Using control devices and applications, *eg Roamer, LOGO*	Very Useful ▼
14	Creating presentations for an audience, *eg using presentation software & multimedia*	Very Useful ▼
15	Choosing and using appropriate forms of electronic communication, *eg email, fax*	Of Limited interest ▼
16	The way(s) in which ICT can be used to meet teaching and learning objectives in specific subjects;	Essential ▼ Subject/s: [All low er school subjects]
17	Using ICT terminology accurately and appropriately, and explaining to students any ICT terminolgy which arises from the application of ICT to a subject;	Very Useful ▼ Subject/s: [Science]
18	The use of ICT to support the development of language and literacy	Very Useful ▼
19	The use of ICT to support the development of numeracy	Very Useful ▼
20	The use of ICT to support pupils' creative development through the use of software which encourages them to explore and experiment with pattern, shape, pictures, sound and colour	Very Useful ▼
21	ICT and Early Years education	Unnecessary ▼
22	Familiarity with the standards as set out in the pupils' National Curriculum for IT	Of Limited interest ▼
23	The current health and safety legislation relating to the use of computers	Very Useful ▼
24	Legal considerations including those related to	Essential ▼

		1. keeping personal information on computers as set out in the Data Protection Act;	
		2. copyright legislation relating to text, images and sounds and that relating to copying software;	
		3. material which is illegal in this country;	
25	Ethical issues including: access to illegal and/or unsuitable material through the Internet; acknowledging sources; data confidentiality; etc.	Very Useful ▼	
26	Current classroom-focused research and inspection evidence about the application of ICT to teaching and learning	Very Useful ▼	

ICT Skills Self - Audit

General - Can you

Preferred Method
of training

1.	Understand the concepts of hardware, software and Information Technology	y
2.	Identify the main parts of a computer	y
3.	Use available Help functions	Y
4.	Talk about the following hardware: central processing unit, input devices, output devices	y
5.	Describe the main types of memory	y
6.	Explain the terms system software and applications software	y
7.	Understand LAN and WAN, the use of the telephone network, electronic mail and the Internet.	y
8.	Talk about computers in everyday life and also IT and society	y
9.	Understand the term virus in computing	y
10.	Elaborate on the issues of health and safety, accessibility, security, copyright, Data Protection Act	part

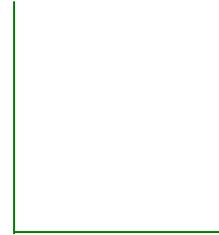**By reading current Health and safety issues – distant learning**

File management

Can you

Preferred method of training

1.	Identify the computer's operating system	part
2.	View the computer's desktop configuration: date & time, volume settings, desktop display options	y
3.	Use available Help functions	y
4.	Work with icons: recognise desktop icons, create a desktop shortcut icon	y
5.	Work with Windows: recognise the different parts, resize, move between open windows	y
6.	Create a directory/folder and a further subdirectory and sub-folder.	y

No further training in this area required at present

7.	Recognize common types of files in a directory/folder e.g. word processing files, spreadsheet files, database files, presentation files, rich text (RTF) files, image files etc	y
8.	Rename, copy, move, delete a file	y
9.	Search for a file or folder using the Find tool	y
10.	Change the default printer from an installed printer list, view a print job's progress from a desktop print manager	y

Word processing

Can you			**Preferred method of training**
1.	Open, save and close a document	y	**Self learning via Microsoft manuals during Autumn term.**
2.	Save a document under different formats	y	
3.	Insert, select, copy, move, delete words and sentences	y	
4.	Format paragraphs	y	
5.	Set tabs, add borders, use lists	y	
6.	Add headers and footers and page numbers	y	
7.	Use the spelling and grammar tools	y	
8.	Prepare a document for printing	y	
9.	Add images, graphics and import objects e.g. spreadsheet	y	
10.	Use mail merge	n	