

APU School of Education

CPD

Independent Learning Module

Module: UNM3997

MA Education

Final Report

10/06/2003

Dr. Ian Terrell

SID: 0165366/1

Table of Contents

1.0) Literature Review.....	3
1.1) Method.....	3
1.2) What is the Evidence of ICT’s Impact on Attainment?	4
1.3) Most frequently discussed uses of ICT in Key Stage 3 English.....	7
1.4) Examples of good practice.....	11
2.0) Illustrative Case Study.....	16
2.0.1) Methodology	16
2.1) Introduction.....	16
2.2) The Task.....	17
2.2.1) Critique of Task	17
2.3) The Pilot.....	17
2.3.1 Critique of Pilot	19
2.4) The Pilot outcomes	19
2.5) Evaluation of Macbeth Project.....	20
3.0) Critical Analysis of Learning Theory.	23
4.0) Conclusions.....	28
5.0) References:.....	32
APPENDIX A	34
Learning Contract.....	34

1.0) Literature Review

When considering use of ICT in English a useful starting point may be “what is English?” The purpose of this task is to consider the teaching and learning of English as a subject taught at KS3 of the National Curriculum. This splits the subject into discrete blocks such as speaking and listening, writing, media, etc. However, I would conjecture that English has developed beyond that. As the introduction to the BECTa publication “Teaching and Learning with ICT in English” says:

“ICT has fundamentally altered the way we communicate with each other and how we think about reading and writing”

Becta (2002:1)

Literacy is considered an intrinsic outcome of learning in English, but the term has become so complex with new literacies being invented (computer literacy) that Semour Papert even invented a new term to describe literacy in reading and writing, or traditional “schooled” – Letteracy! (Brindley, S (2000:14). Communication is no longer limited to “traditional” written texts, we now also have non-linear text through multimedia and the internet as well as electronic communication via email which are having an impact on English as a subject. Even Arthur. C. Clarke has suggested the importance of email as a new and important tool for communication and predicts that everyone in the world will eventually have it.

(http://news.bbc.co.uk/1/hi/special_report/2949974.stm: 4/6/2003). As the subject of English encompasses media, the fact that many media can now be delivered electronically – e-books, computer games, educational materials, etc; suggests that ICT is now an intrinsic element of “English” and not only a skill to be learned. It can even be argued that ICT based communication now forms part of the network of language evolution. Computer gamers develop new terms, which are used world-wide by online gamers – forming entries into many languages at once. Young gamers can actually be a big stimulus in that development. (BBC 04/06/2003).

1.1) Method

It is intended that this literature review should focus mainly on the following key issues.

- i. Whether using ICT in English at Key Stage 3 can have any impact on attainment.
- ii. The most frequently discussed uses of ICT in English at Key Stage 3.
- iii. To find 2 examples of good practice in using ICT in English.

These issues will be researched through a book search in the APU library under the key terms “ICT, English, Attainment, Key Stage 3, Learning”. In addition, searches will be conducted on the SWETSnet site (online magazine subscriptions) and the internet (via Google, vivisimo and Lycos) using similar search criteria.

1.2) What is the Evidence of ICT’s Impact on Attainment?

Over the last 15 years, a number of texts have been written about the relationship between ICT and education. Many of them reflect on work done in the UK, US and Australia in developing ICT in schools. I have chosen to focus on some key texts, focusing specifically on ICT in English, such as “English in the Digital Age” edited by Andrew Goodwyn (2000) and “ICT and Literacy” edited by Nikki Gamble and Nick Easingwood (2000).

I believe in the ability of ICT to raise attainment but there is actually very little evidence in these books or any others read, which supports this view. The subject is relatively new and there seems little pedagogical basis for teachers to draw from, although this would seem to be true throughout all subjects. The constructivist approach for learning through doing does not seem to be commonly accepted in education yet – even though the evidence for it’s ability to motivate and challenge children through computer games seems astonishing. (Thompson 1999). In addition, little research seems to have been done into ICT’s impact on attainment and these three issues prevent firm and reliable analysis.

This lack of evidence does not prevent technophiles and commercial software manufacturers from claims about the ability of ICT to “Help your child stay one step ahead.” (Buckingham et al (2000:36)). Buckingham goes as far as to say of one software supplier:

“The claim that using such software will give your child a ‘head start’ in the educational race is quite unashamed”

(ibid)

Even BECTa say:

“It has unique potential to extend and enhance pupils’ learning in English.”

Although this doesn't go as far as to suggest the power to improve attainment!

My personal experience does suggest that when used "imaginatively" (ibid) it can help to raise attainment through its impact on the students' motivation and engagement.

Several authors were prepared to make positive statements about ICT's ability to motivate learners and enhance learning, but none made direct observations or judgements about ICT's impact on attainment in English. The exception was the ImpaCT2 study, one strand of which was a specific focus on ICT's impact on attainment. The study response document states:

"The ImpaCT2 study has – for the first time on this scale in the UK – revealed a link between higher ICT use by pupils and their improved performance in National Tests and GCSE exams."

(ImpaCT2 Response (2002:1))

Bearing in mind that this is a generalised statement over the three core subjects it is far more telling to view the complete findings for key stage 3. In the full document the analysis of ks3 included some interesting comments:

"The majority of pupils surveyed reported never or hardly ever, using ICT to support their learning of English, either within their English lessons (61%) or within their wider school experiences (72%)"

(ImpaCT2 (2002:21))

This is a worrying statistic as it is almost impossible to make judgements on empirical data if the sample is so low. Further more, the report goes on to say:

"Clearly, any effects identified are likely to be as much a result of home use as of use in lessons"

(ibid)

This could be a powerful argument in favour of independent learning, or an indictment on cross curricular ICT experiences in this country.

The report analyses student attainment in KS3 English across users with a relative high and low usage. Even though the overall impact on attainment is negligibly small in real terms – the comparison between the two levels of usage is still telling.

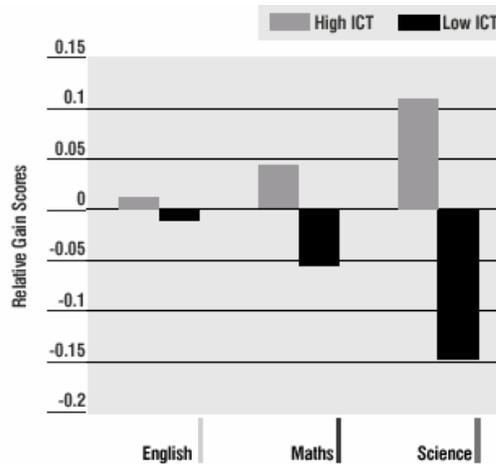


Fig 1: Relative gain for high ICT users vs low ICT users in English, Maths and Science at Key Stage 3 (ibid:22)

Again, as the ImpaCT2 authors quite rightly say:

“In mathematics and English, there is a positive association but it is not statistically significant.”

(ibid:23)

When analysing why Science can demonstrate a statistically significant association between increased ICT usage and attainment, we can't point to the increased use of ICT in school as Science has a significantly lower percentage of use than English (ibid).

Therefore – why is there a higher impact on attainment?

I would suggest that the higher impact in Science is down to a number of separate issues.

- Science teachers tend to have a wider breadth of ICT competence and confidence (personal observation as a teacher trainer) resulting in higher quality teaching and learning.
- Science is very content driven. The KS3 curriculum document extends to 9 pages of content and skills, where English is 9 pages for KS3 and 4 combined. The content is very fact orientated. Emphasis on Scientific enquiry is also key.

- To me, the English curriculum appears to be more about an emphasis on process. (Speaking, listening, writing). The content is more interpretative (studying texts, poetry) Skills, knowledge and understanding are also key (Grammar, etc)
- Science departments readily apply a wider range of ICT based opportunities (data processing, data logging and control) as well as those used by English (Multimedia, research, Internet, scientific simulation.)
- English departments tend to be limited to presentation with access to internet and multimedia resources. More creative departments may also use video / audio / storyboarding – but then so can Science.
- From the KS3 Curriculum, there appears to be a higher emphasis on using ICT. The English curriculum has 2 highlighted “ICT Opportunities” the Science one has 13! This is significant in terms of perceived expectations – almost as if the DfES don’t expect much use of ICT in English.

Conclusion

- It is not possible to form meaningful conclusions on the basis of one study, although that study may act as a useful indicator. However, in general there is insufficient evidence to support an argument that increased use of ICT results in a statistically significant increase in attainment at Key Stage 3, in English. The evidence from Science suggests that the potential exists for the claim to be proved in the future when English departments match Science in expertise and use. Observation and experience still, however, lead me to believe that ICT use can have a positive impact on attainment.

1.3) Most frequently discussed uses of ICT in Key Stage 3 English

Most texts recognise the importance of the Word Processor as a means to engage students in writing. As Sue Brindley says:

“There has been evidence that teachers initially used ICT to correct secretarial features”

Brindley, S (2000:14)

I think this is a very accurate observation from my own experience, but perhaps unsurprising when teachers themselves had little or no experience beyond this “Secretarial” use. Nick Easingwood goes even further:

“Word-processing, or what many teachers perceive as word processing, has been the preferred use of the computer for many years in Britain’s schools.”

Easingwood, N (2000:49)

The benefits of allowing students to draft, redraft and present their work using a Word processor are unquestionable, as Easingwood goes on to say:

“To the reluctant writer this may have the emancipatory effect and redrafting will evolve into editing, itself a higher order literacy skill. Whether this is done by the original author or peers, the emphasis is on changing text to make it better, rather than rewriting it.”

(ibid:50)

So, despite the apparent functional use of Word Processors, quality learning can take place in a discovery based way. My observation is that the use of the Word processor tends to be to *present work already drafted* by hand in its final version, which could negate the benefits above.

I posed a question to the members of ACITT (ICT Co-ordinators forum) about use of ICT in English. Only one person protested, saying:

“I get really angry with 'ICT + English = Word processing'. For heavens sake, we have possibly the single most important learning tool available to us since we dropped slates for pens and all we can do in English is 'copy up in best!'”

(Teresa Wilson. teresa@chalkface.com

Sent: 01 March 2003 11:47)

It is true that there are many good examples of use of ICT in English, which could demonstrate, in my opinion, similar positive outcomes to those shown in Science – if usage was increased for all students. These will be explored in the next section, but the general feel from the literature is that the main use of ICT in English is still use of Word

Processors as typewriters – not learning tools. To quote another response from the ACITT discussion group:

“..while I agree that there are more things in the world than word processors, they are surely a lot more than copy up in best. Drafting redrafting - or writing with light as it was once called is a liberating skill for most humans. Certainly I couldn't go back to using a pen. So multimedia has a place (limited in my view) but all power to the word processor users in English. Just using a suite of computers to draft and redraft coursework will give massive achievement gains to the whole ability spectrum in English.”

(Martin Kilkie <martin.kilkie@greenwich.gov.uk>

Date: 01/03/2003 22:38:05)

Although I take his point about the value of Word Processing, I feel that the evidence simply doesn't support the view that it gives “massive achievement gains”. If this were so, I would expect to see a more significant impact on attainment than that shown in section 1. It could be argued that the use of ICT in English is currently too low and inconsistent to say that there isn't such impact – but that argument works both ways.

Examples of web based and multimedia approaches abound in the literature. It seems that the use of hypertext and hot texts is generally approved of, as Davison and Dowson say in their Introduction:

“...reading texts on computers, especially Web pages with 'hot words', draws attention to the multidimensionality of reading, which has never been so apparent before.

(Davison & Dowson (1998:14))

What I feel is particularly valuable about the emergence of this type of approach is the non-linear / lateral approach to thinking it engenders. Tweddle et al also note this particular outcome, with the observation:

“There will be a need for a broader repertoire of analytical skills and expanded criteria to enable students to make decisions about reading and writing based upon their understanding of what different texts are good for.”

(Tweddle et al (1997:2))

Going further, Brindley describes the use of hypertexts as an *advanced literacy skill* (Brindley, S (2000:16)), which must be a positive learning outcome if even young students are doing it, capably. Not all authors are so taken, however. Richard Millwood makes the observation:

“The essential difference with hypertext as a new medium is the non-linear structure (what becomes of narrative?).”

(Millwood, R (2000:43))

One might argue that, though fair comment, is it not also possible that in an essentially hypertext driven world – the non-linear literacy is an equally important skill to narrative?

Another example of common practice in English is the use of Multimedia CD ROMs. These can potentially possess many of the non-linear benefits of the web but can also be more structured, for example following a timeline (James, B (2000:66)). My own research has shown that these products are most successful if there is some structure and meaning to the product (experience). Also, when students have full access to the product so that the revelatory paradigm can come in to play. As Becky James comments in her discussion of “Titanic – An interactive Journey”:

“The combination of these elements (sic) engages the reader’s attention in a way that traditional word-based texts cannot”

(James, B (2000:66))

Use of it simply as an instructional tool devalues the potential learning outcomes significantly (Norman, P (2002:23)).

Finally, the use of email merits discussion in all of the texts I read. Andrew Goodwyn reflects the views of most authors with his comment that:

“The astonishing facility of email is to turn us all into rather better, if somewhat promiscuous, correspondents.”

(Goodwyn, A (2000:19))

From my own observations of students and email I would have to concur, but Goodwyn goes further in his claims for email.

“It is not just the speed and reciprocity of email that **enhances learning** (my emphasis); it is also the medium itself. It is a new hybrid form of communication that brings speech and writing together, inviting conversational writing with a voice that the reader will soon ‘hear’.”

(ibid)

It is certainly true that students enjoy the nature of asynchronous communication with email and the positive benefits of them developing as “habitual writers” (Tweddle et al (1997:29)) are unquestionable, particularly for boys. It could be argued that there are also serious downsides to Email, though. The language used in emails is often informal and significantly different to protocols used in other media. This could be said to have a negative impact on quality of writing – a deskilling effect; even if the engagement in writing increases.

1.4) Examples of good practice.

To my eyes, the English Curriculum for KS3 seems to be written as if ICT doesn’t exist. The breadth of study section only talks about film, TV and radio – no mention is made of Internet or computer based resources (CD ROM, etc). Print and ICT based information texts are highlighted separately but the potential of accessing “unpublished” creative work, such as poetry and essays, is completely ignored by the focus on information. The wealth of possibilities for communication are also ignored. No mention is made of email or other synchronous (messaging) or asynchronous (bulletin boards) communication. To be fair, the curriculum is written in a generic way and many aspects are open to an ICT interpretation as well as the more traditional ones, but an explicit description of possibility would have helped allay the impression that the authors have no interest in the:

“..unique potential (*of ICT*¹) to extend and enhance pupils’ learning in English.”

(ibid:1)

Some of the issues are addressed by the British Educational Computer Technologies Association² and also by the TTA³. All newly qualified English teachers will have

¹ Author’s addition

² BECTa

³ Teacher Training Agency

undertaken the Teacher Training Agencies initial training, which specifies a range of uses of ICT in teaching and learning of English:

ICT in secondary English

ICT has the potential to make a significant contribution to the teaching of English by:

enhancing and developing pupils' reading and writing	ENG1A
supporting and enhancing the study of literary texts	ENG1B
enabling pupils to engage with texts in ways that would not always be possible through a paper-based activity	ENG1C
enabling pupils to focus on the content of their writing	ENG1D
emphasising the link between the writer and the audience	ENG1E
promoting the integration of reading, writing, speaking and listening	ENG1F
enabling literacy skills to be extended beyond reading and writing of chronological and linear text	ENG1G
providing a flexible and time-saving resource	ENG1H
enabling the teacher to make formative and summative assessments	ENG1I
allowing the teacher to focus directly on texts at different levels, using different strategies	ENG1J

TTA (2000)

Note the directive tone of the opening sentence “...*impact on the teaching of English.*” Within the training objectives for each of these foci a range of examples are suggested. For enhancing and developing reading and writing, for example:

“by increasing challenge and pace in a timed session through the use of a real-time computer simulation or participation in an on-line newspaper day, both of which require pupils to receive, act upon and respond in a specified time; or through more direct contact with real audiences beyond the classroom and the local community, by providing access, for example through use of fax or the Internet, to a wide range of up-to-date learning resources. “

(ibid:9)

By inference the description above is specifying a more cognitive approach to learning for the students. The interaction and contact with “real audiences” would infer a situated approach to learning where the immersion in communication with a situation will drive the need to develop the strategies and skills to cope with it successfully. The last objective also suggests a more cognitive or constructivist approach:

“when reading a multi-layered text such as a family history readers can take a number of different routes through it, accessing graphics, text and sound. Teachers need to recognise the different reading demands made by such texts.”

(ibid:9)

It is debatable whether these approaches can be described as good practice, but my experience shows that students are motivated better by and show greater engagement with such activities. However, not all of the objectives are illustrated in the same way, for example objective 2 discusses how students can use split screen to compare texts (ibid:9). This is a good idea but could easily be achieved through a photocopy where the much higher resolution, compared to a normal screen; suggest that it may be better for young eyes.

There is still a question about the use of the term “literary texts”. It is never clear if the authors consider this to include web-based publications or not. Has the ability to publish world wide electronically had an impact on “literature”? This is an area that deserves further research, but there is a feel of looking for uses for ICT, many of which simply refocus existing strategies onto a computer workstation but don’t address good or more innovative practice.

The suggestions are not simply Word Processor based activities. This is a common theme throughout the rest of the objectives and is supported by the guidance for ICT in English from BECTa. Within this document a number of alternative approaches are highlighted. Some are the same as the TTA document while others are far more creative:

- Using hypertext to explore relationships between and within texts.
- Investigate language in use on the internet
- Use databases of language to explore word usage
- Use a spreadsheet to present in a pie chart findings from a pupil questionnaire as part of a discursive essay
- Use a multimedia package to display images and words that add or contrast with the words of a spoken performance
- Record drama and spoken language in class for the purpose of discussion and reflection

BECTa (2002:2-4)

This is more reflective of the wider range of skills employed in Science. If all English teachers could be encouraged to use ICT in these ways and to become active participants in developing other ideas, the relative impact on attainment may even start to challenge that in Science. As the BECTa report on ICT in practice Award winner Judith Kneen says:

“As well as easing mundane, mechanical tasks, Judith believes that ICT helps to enrich and widen teaching and learning and, in particular, she points out that the Internet offers diverse opportunities for comparing and contrasting different forms of writing, as well as an incentive for students to write and publish their own material.”

BECTa (2002)

Some texts show Word Processor use being refocused. “Being creative with a word processor” is an online text, which offers suggestions on the use of WP as a learning tool, rather than just as a means of presentation. Techniques such as application of colour to identify rhyming words or using the find and replace tools to switch words in a text. I also like the use of font styles to highlight mood and meaning within the text (<http://www.smartgroups.com/vault/english.teaching/Using%20ICT?viewtype=Detailed&shownum=20&sort=type&dir=asc&startrow=1>, visited 5th March 2003). Allowing students to engage with a readily available and familiar application but to use it to demonstrate understanding of concepts rather than for presentation is a different, creative and exciting way of using the everyday Word Processor.

A second example of a more creative approach to learning in English is Kar2ouche®. This is a storyboarding and animation multimedia tool developed by immersive education and Oxford University. One of the keystones of the marketing for Kar2ouche® is the research carried out by Oxford academics into its impact on learning. It could be argued that perhaps the researchers have a vested interest in seeing it succeed as they have helped develop it (Birmingham et al (2002:142)) and this may colour our judgement as we read the research. The claimed rationale behind the software is to think about and explore the theatricality of a situation (in this case Macbeth) and to creatively explore as if a director of the play. (ibid:142) The inference here I believe is that the learning is situated, a term referred to in the introduction (ibid:140) and therefore a step beyond the normal whiteboard and pen discussion. Indeed, Birmingham and Davies state:

“Careful scrutiny of all the data generated in the trial lessons made explicit two distinct devices intuitively used by pupils during their exposure to *Kar2ouche*® to gain a deeper understanding of the set scenes than may have been possible by other means. Both point to the usefulness of being able somehow to bring to life moods and moments of the play. “

(Birmingham and Davies (2001:241))

To enable students to gain deeper understanding in a way they enjoy and are motivated by has to be a good thing in my opinion.

Although there are other examples in literature of good practice, these are the two examples that stood out for me. As the wealth of online and curriculum content grows and the use of learning technologies becomes more prevalent I would expect to start seeing specific consideration given to best practice in use of whiteboards, animation, digital video.

2.0) Illustrative Case Study

2.0.1) Methodology

This case study is intended to be a representative example of good practice in using ICT in English. The project was not planned as action research, so the case study itself represents a naturalistic and interpretative approach to reviewing the project.

All comments are based on student, teacher and my own perceptions and observations – based on experience of the task. This is obviously a subjective approach relying on personal interpretations and is therefore interpretative.

Although judgements about the projects impact on attainment may be made, a positivist approach would not be suitable as no empirical data was gathered. All such judgements are based on teacher experience and knowledge of students. A positivist approach would have been able to offer a higher level of rigour and integrity for such claims, but as a retrospective analysis this is not possible to achieve.

2.1) Introduction

For several years, the English department have delivered a module on Shakespeare to all students at the end of year 9. This has been focused on Macbeth and was traditionally delivered through a combination of taught content, book based resources, discussion and presentation work – mainly in written report format. With the provision of laptops to all teachers, the introduction of broadband – school wide internet access and improving networked computer facilities; it was decided to try and enhance students' experience and develop a wider range of skills by refocusing the task into an ICT led activity.



Fig x: Year 9 students at SWCHS working on their Macbeth Project.

2.2) The Task

The initial concept was that students would work in small “press” teams to investigate one aspect of the play or Shakespearian / Elizabethan life. This would then be presented in the form of a web page or site, thus developing a new set of skills and, hopefully engaging, stimulating and motivating the students in their learning. The tools available at that stage included Microsoft Word® and Publisher® for presentation. A BBC CD Rom of Macbeth for research and a variety of book based resources. Hardware access included approx 1:2 computer to student ratio in the room, a scanner and access to a laptop with microphone and sound recorder.

2.2.1) Critique of Task

One of the main criticisms of this type of task is that it relies heavily on ICT skills and development of new skills even to get the students to the point where they are able to put a meaningful presentation together. Some of the English teachers felt that this time would be better spent on analysis and discussion of the piece and less “distraction” from the technology. I agree that the time invested could be considered “expensive” from an English learning perspective. Ideally the students would go straight into the task without so much teacher intervention, however, in the early stages of the project, both students and staff were lacking the skills and experience needed to do this. It could also be argued that the time invested in developing the skills is repaid by time saved in presenting the final piece. The students would have to invest more time (from experience) producing an equivalent paper based outcome without the use of ICT. Perhaps a compromise would have been for all students to complete an ICT generated word processed document – however, this removes the ability to produce non-linear content and to link to external sites and sources for the audience to experience.

2.3) The Pilot

My role as head of ICT was to work with the then head of English to develop an approach which allowed us to enhance the students’ experience of Shakespeare. I suggested the task and ways of differentiating the approach to ability. I also delivered training to the department to enable them to help support students in their ICT skills. In addition I supported most of the English classes for at least one lesson to help the subject teacher

build confidence. This included teaching the students the ICT skill aspect of creating the web page and offering my experience when talking about researching and producing resources. It was also my role to evaluate the outcomes, in terms of the teachers and students perceptions of the tasks and to develop the project around the feedback received. Although the project was never talked of as action research and certainly was not defined by an academic approach to researching, it was essentially that.

For the first year students were placed into groups to work together. It was decided fairly early on in the early stages that the weaker students would be given the flexibility to produce a simpler presentation in Newspaper or Leaflet format, or on Power Point®. This decision was taken when it became obvious that creating a web page in publisher (in itself not too difficult) combined with our network was too difficult for some students who were not familiar with it. The mid to more able students didn't seem to have any difficulty and were able to progress effectively after a brief introduction to the program.

Each class was supported by an ICT 'specialist' if required, both to teach the web creation aspects of the task and to help and support the normal English teacher in guiding the group. Students were able to capture resources off the internet, scan in material from the books and record their own audio interpretations of the scenes they had chosen – if desired.



Fig y: The Author supporting a year 9 English Group

2.3.1 Critique of Pilot

The pilot could be considered flawed in several ways. This is perhaps not surprising as it constituted a dynamic and new way of using ICT within our school. The pilot was expensive from the context of having two teachers in many classes – an English teacher and an ICT support teacher. Another criticism could be that the teachers had limited effectiveness for a high cost – the ICT person not necessarily being able to offer high quality advice and learning support for the English context and the English teacher for ICT. We felt that this was a necessary and acceptable part of running the pilot and were under no false illusions about the overall validity. Another criticism that could be levelled is that there was no attempt to measure relative attainment before and after the task, so we have no empirical evidence that the task added any value to the students learning. The only evidence is naturalistic and perhaps, therefore, less robust as it is based on interpretation and observation. I would naturally argue that an empirical approach would have been fairly meaningless on such a small sample and the project demanded a more flexible and teacher led interpretative way of analysing the outcomes.

2.4) The Pilot outcomes

<p>Staff Comments</p>	<ul style="list-style-type: none"> • high motivation of the students • positive engagement in the task • high quality of the learning outcomes • short term improvement in engagement and motivation • improvement in quality of presentation • improvement in demonstration of understanding and interpretation of an aspect of the play • not all students benefited • groups of 2 or 3 to share a computer meant that some students chose to have little real input and therefore showed no demonstrable improvement in any aspect of learning • Many students found the task too challenging and therefore suffered negative effects on learning – disengagement, lower
------------------------------	--

	motivation and lower attainment.
Student Comments	<ul style="list-style-type: none"> • majority of students enjoyed and valued the task • able to identify simple ways in which they had enjoyed the task. • ranged from simple enjoyment of using the computers to an appreciation of the independence that the task engendered. • improvement in quality of presentation • some didn't like sharing • some felt that the whole thing was boring (bored by the topic in general and not necessarily by the different approach.)
Other Observations	<ul style="list-style-type: none"> • The products produced varied from simple printed documents, through fairly basic slideshows all the way to multiple page websites with internal and external hyperlinks, sound and image/text content • One student even included a virtual reality tour of the globe theatre that he located on the internet! • ICT is not a solution to every child's learning needs. • For many the lack of enjoyment stems from lack of understanding of the work or a desire to protect "street cred" by rejecting it. • Some fairly bright students take the view that it is easy – they know they can achieve it, so why prove it?

2.5) Evaluation of Macbeth Project

Bearing in mind the criticisms of the project discussed above, this evaluation will attempt to analyse the project against its original intent.

- The project aimed to improve motivation and engagement of learners within the context of the study of Macbeth by William Shakespeare.
- The students were to develop a new range of skills in the use of ICT.
- The students would develop teamwork skills as they would have to work in small teams.
- The students would demonstrate their understanding of an aspect through the completion of a presentation.

Initially, the high teacher overhead and lack of ICT access for the English groups were a problem that resulted in perhaps a lower degree of engagement than could have been possible. The lack of access and the group work enabled some students to disengage from the task early on and others were able to “hide” within their group and could not be said to have “demonstrated” understanding. Most students were seen by the teachers to be on task and active and many were very positively motivated and achieved high order outcomes through their presentations. Many students focused on an aspect of Elizabethan life rather than an element of the play and it is possible to argue that this has a negligible impact on their understanding of the play as the period that Shakespeare was writing in was differently, culturally and environmentally to the actual situation of the play. Therefore the investigation could have had only limited ability to inform the students on Macbeth itself. Conversely, it could be argued that the freedom to investigate Shakespeare’s own situation allowed some students to broaden and even enhance their understanding of the political nature of Macbeth and the constraints that allowed it to be written as it was – given the nature of drama in Elizabethan times.

For all students the presentation allowed the development of ICT skills. Many learned how to put together a web site with non-linear text and enhanced use of illustrative techniques – sound, graphics and animation; when compared to the previous written presentation. Many students developed their skills in preparing text for a given audience and considered the level of language appropriate to their audiences needs – but the group work approach allowed some students to avoid undertaking any significant input and therefore development of either skills or understanding – both in terms of language and ICT.

The students who engaged and worked effectively within their groups did develop effective team work skills – negotiation, planning, discussion, etc. Again, though those students who chose to allow others to lead and had little or no input did not benefit from the approach. The argument here is that these students need 1:1 access in order to ensure that they are engaged and focused, even if they have to carry out planning tasks with others.

Staff found the task interesting and different although some concerns were evident about its value, educationally (ie. To benefit learning in English rather than ICT). These concerns were and still are real and valid and the task needs to develop in a

way that allows English teachers to take ownership of the project completely and develop it in ways that they are happy with. The future at this stage could include the incorporation of a module allowing students to model a chosen scene from the play using the Kar2ouch® application. This will broaden student skills and help them visualise their interpretations of the scene more readily. The benefits or otherwise of Kar2ouch® are discussed elsewhere and won't be dwelt on here.

3.0) Critical Analysis of Learning Theory.

I have conjectured throughout this assignment that the main use of ICT in English seems to still be as an Instructional or Instrumental tool. I have quoted literature which shows how ICT can be used as a more cognitive learning tool and that this is considered a highly effective way of learning. The purpose of this brief section is to critically analyse how well the common uses of ICT in English at Key Stage 3 (discussed above) fit constructivist theories of learning as an aid to bettering my own understanding of the issues

It is useful to view an interpretation of how the conjectural or constructivist approach compares to other philosophies of learning. The following table reviews the three main paradigms of learning and the models that fit. It is my opinion, expounded in earlier work, that the paradigm most often applied in Education is the Instructional. This is due to the content laden curriculum (note the Knowledge transfer issue under key concepts) and the pressure on teachers to meet learning objectives within tight timescales (the throughput mode). Multimedia has the opportunity for real revelatory learning but is often confined by these constraints to an instructional ‘electronic textbook’ role (page turner caricature). (Norman, P (2002:).

View	Instructional (Skinner, Tolman)	Revelatory (Bruner, Ausubel)	Conjectural (Kolb, Vygotsky)
Key concepts:	Knowledge transfer	Intuition, revelation	Experiential, social learning
Curriculum orientation:	Content	Student	Interdependence
Curriculum delivery:	Quality instruction Linear programmes Atomistic: parts prior to whole.	Staged opportunities for discovery learning. Strategies include using questions to increase the degree of learning	Scaffolding, modeling, collaborating. Cross-discipline. Holistic. Whatever learning experience works. Specified outcomes
Knowledge:	Storehouse of facts	Terrains to explore	Bicycle to ride
Learner image:	Consumer/ competitor	Explorer, team worker	Producer, collaborator
Learning process:	Throughput	Discovery	Output, input
Evaluation of learning:	Internal	Shared	Self- and external evaluation

Role of computer:	Structured, hierarchical presentation, feedback	Simulation, information handling, things to explore	Manipulable space for collaborative creation of knowledge
Assumptions:	Behaviouristic learning theory	Theory of learning by discovery	Problem-oriented theory, cognitive theory
Idealisation / caricature:	Patient tutor/page turner	Rich learning environment/ 'black box'	Milieu, venue/ expensive toy

(Adapted from Barr and Tagg (1995) in: Mitchell, A (2000))

Note that the model assumes a problem oriented Approach to learning ie: the application of cognitive theory where learning takes place in context or is:

“inseparable from the world, achieved through participation in the culture of practice”

(Leach and Moon 1999:271)

Piaget suggested cognitive development was a process of maturation. A balance between what is known and what is being experienced is developed. (Williams & Burden 1997 in Pachler & Leask 1999: 10); or that children should be seen as builders of their own intellectual structures, developed through experience and exposure to environments and processes. (Papert 1993: 7).

Another exponent of cognitive learning, in this case constructivist, is Vygotsky. Generally attributed with the coining of the term “intellectual tool” (Davis et al 1997:14) he noted that humans have been endowed with certain mental functions (classified by him as lower and higher order functions) and those functions (memory, etc) allow us to make sense of our environment. (ibid :15). Further, we construct meaning from our experiences through the use of these tools – in which sense we learn. Children are capable of using these natural tools to learn, although higher order learning should be carefully considered and planned (ibid :16).

Marilyn Foreman argues that the National Literacy Strategy is predicated on Vygotskian principles (Foreman, M (2000:83)). She continues to explore how the Vygotskian interpretation of teaching and learning is inherent in the language of the teaching objectives (ibid) and that with the improved training (presumably ITT and NOF) teachers would be able to incorporate ICT into their approach, but that that the approach has been:

“undervalued in the prescriptive and often narrowly defined methods of presentation to teachers and consequently in the implementation of the Literacy Hour.”

(Foreman, M (2000:83))

Although this is a valid observation to English in general, it could be argued that even though many teachers of English feel constrained by the Literacy Strategy (personal observation) I feel the inference that ICT would be used if the strategy was less prescriptive, is optimistic.

The social constructivist philosophy suggests that computers will:

“support students working together on self-directed activities to create understanding”

(Selinger, M (2001:85))

This view underpins my understanding of the cognitive / conjectural approach being experiential as expounded by Kolb in his situated learning theory (ref). The students create / build and develop their understanding by working within that context in a self guided way. The teacher can help by:

“creating contexts for ‘high quality’ discourse and ‘interactive’ learning.”

(Foreman, M (2000:84))

It has already been argued that the primary use of ICT in English is as a tool for presentation. (Easingwood, N 2001:49) In that context I would suggest that the learning has already been done in the non-ICT context (which may well have been constructivist in approach!) and that the use of ICT is purely instrumental in nature. The computer becomes the tool for showing learning rather than a means to learn. This is not to dispute the claims made by Easingwood (ibid) about the presentational use encouraging higher order literacy skills, but to question how many students truly benefit in this way and if that can be defined as a “constructivist” approach.

Where CD Roms and the internet are used, my own observations and experience have shown that it is usually as an add-on activity – not because they are valuable learning tools, but because they cost money! These are usually used for research into a topic or theme (find two pictures of Shakespeare) and are rarely used as a means to successful

learning in their own right. More often than not they are sampled without space for reflection and discussion in a less effective way than even paper based sources are. I should add that this is true of all areas of the curriculum and not just English. Where these resources are used it is often unplanned and the learning approach could at best be described as revelatory. More often than not they are used as an instructional tool (go to this screen and read the paragraph) which negates the potential of the revelatory paradigm and the non-linear media.

The more creative approach to Word processing is far more exciting as it could engender a more cognitive approach with learners reflecting on and demonstrating their understanding as they use the application to illustrate the text. If they work in pairs or groups using the tools to highlight the appropriate themes in each others work they will develop their own understanding and reinforce the learning of the writer.

I would also argue that the Kar2ouche storyboarding software is also predicated on a cognitive approach to learning. It could be used in much the same way as any other presentational tool – “you have learned this - now show me in pictures”. However, the promotion of the tool and the associated research have been mainly founded around the tool being used to learn and explore a theme from, say, Macbeth. The students are allowed to explore and developed their own interpretation within their own experience and understanding of the issues. This in turn encourages debate, discussion and reflection by which means the students review their ideas and approach – ie. Learning is taking place independently of the teacher. The teacher doesn't have to review the mood of the scene as the students will have to do this as part of their scene setting. As one research report shows:

“The teacher considered *Kar2ouche*'s greatest strengths to lie in its ability to stimulate discussion, promote collaboration between pupils and to represent key images, moments and moods. Pupils reported a clearer appreciation and understanding of the scene having used the program.”

(Birmingham and Davies 2001:245)

This demonstrates the tool's potential as a cognitive learning tool when used in an appropriate way.

Conclusion:

It is my opinion based that, despite the language of some of the DfES literature; the constructivist model of learning is not highly evident in ICT use in English. I feel that the main use is instrumental with the computer replacing pen and paper to record learning that has already taken place. Multimedia and CD Rom resources can be and are used in a “revelatory” way, but often as research into or preparation for a learning activity and often in a fairly unplanned and unstructured way; not as the learning activity itself. This revelatory approach can become partially constructivist. Good examples do exist, however, of practice which does demonstrate constructivist principles and approaches and which can be shown to be successful for students learning. These examples would include Kar2ouche and Creative Word Processing.

4.0) Conclusions

I set out at the start to investigate three issues:

- i. Whether using ICT in English at Key Stage 3 can have any impact on attainment.
- ii. The most frequently discussed uses of ICT in English at Key Stage 3.
- iii. To find 2 examples of good practice in using ICT in English.

I have established a view that there is a potential for ICT to have an impact on attainment in English but this is too poorly supported by evidence to make a definitive claim. I have voiced the opinion that given more creative and greater use of ICT, the impact on attainment will at least move closer to that of Science.

I have discussed and evaluated the most frequent uses of ICT in English and have critiqued their effectiveness. I have also discussed the situation of ICT in English as regards the National Curriculum and how BECTa and the TTA have tried to address the issues. My perspective that ICT is still used mainly as a secretarial tool for presentation and not as a “learning tool” is reflected in literature, but many examples of how ICT could be used more creatively are also present. The place of ICT as a conduit for cultural development in terms of communication and language has also been discussed and is highlighted in the literature as an area English teachers should be aware of.

I have examined two examples of what I would consider, after reading, to be good use of ICT in English. I have critiqued these and the approaches they reflect as well as examined how the theory supports their potential as effective learning approaches. To supplement this I have also produced an illustrative case study of work done in my own school that I consider to be good practice.

Level M - (MA Education)	
1. Show an appropriate level of independence, autonomy and originality in the negotiation and conduct of your studies and its assessment.	<i>I have worked independently, only requesting advice on rare occasions. I do, however, acknowledge the kind sharing of thoughts and potential information sources from my professional tutor, Dr. Ian Terrell. I</i>

	<i>have negotiated the contract and conduct throughout. My work is original and where work of others is used it is properly referenced.</i>
2. Read, understand, analyse, evaluate and critique research, theory and literature on education, competently and to a standard appropriate to be considered a Master of Education.	<i>I have read comprehensively from a variety of sources, both directly and indirectly relevant to my study. I have worked hard to build substantial evaluative and critical comment into my work, but it could be argued that the generalisations I make are based on too narrow a breadth of reading. This is fair comment, but on a 16 week module it would be challenging to do more. I have accessed current and past educational research and literature and analysed it in the context of my study objectives.</i>
3. Isolate, analyse and evaluate key features and concepts in the research, theory, literature and practice on education	<i>I have isolated key ideas, concepts and theories within my reading and used those for the purpose of critical discussion or reflection within my own work. I have highlighted both theory and practice.</i>
4. Develop new perspectives on existing knowledge, research, theory and the literature of education.	<i>I have developed my own perspectives on existing knowledge and applied them to my own experience and to my reading. Again this is limited in this instance to the relatively short time span available, however, I have also drawn on my previous learning from the MA course in my work.</i>
5. Invoke and develop appropriate theoretical models in order to conceptualise and/or investigate current or evolving practice in education.	<i>I have invoked theoretical models and applied my perspective and experience to them in the construction of my arguments and have shared my thoughts and views through communication with other researchers and teachers, both in my own institution and through the asynchronous</i>

	<i>systems available through the Ultralab learning portal. In my opinion I have played a far more substantial role in that process than most of the other members of the group.</i>
6. Challenge existing knowledge, research, theory, literature and practice through evaluation, analysis, valid argument, and appropriate evidence.	<i>I feel I have challenged literature and existing knowledge by using argument and analysis based on valid and appropriate evidence – even where it is from my own experience; but more often where it is reflected in other areas of reading.</i>
7. Communicate with other practitioners of education those insights and perspectives in an appropriate form and thereby, contribute to the development of educational knowledge and thinking.	<i>As well as my involvement in the Ultralab think.com forum and communication with my professional tutor, the ideas and perspectives formulated are already being used to refocus use of ICT in English in my school and will be fed back to partner schools, also. The lack of evidence of an impact on attainment in English is disappointing, as it slightly weakens the argument to develop the approaches but I feel this is indicative of the status and limited time that it has existed within English. I would expect it to be more rigorously researched as time progresses.</i>
8. Generalise from and apply their sophisticated and in-depth understanding of education, in a specific area, to practice strategies for the development of practice.	<i>The ideas, concepts and theories studied within this and other Masters modules are being used to help guide my development of strategy within ICT in my own school. This includes teaching excellence programmes and training for new teachers as part of our training school status.</i>
9. Show a level of preparation for MPhil/PhD studies.	<i>I believe that this work is preparing me for work at a more extended level, be it a PhD or other route.</i>

I was unable to incorporate research conducted by questionnaire to the 7 secondary schools in SEEVEAZ as the return was extremely poor. I am not willing to form conclusions for a whole group of schools based on the feedback of one or two as this would not be rigorous, would lack integrity and would effectively be meaningless in outcome. I have, therefore, focused more heavily on the other areas.

5.0) References:

1. BBC (19/03/2003) "Melting Pot of Online Gaming" at:
<http://news.bbc.co.uk/1/hi/technology/2857061.stm> (04/06/2003)
2. BECTa (2002) *ImpaCT2: The Impact of Information and Communication Technologies on Pupil Learning and Attainment*. London. DFES
3. BECTa (2002) "Teaching and Learning with ICT in English", Coventry, BECTa.
4. BECTa (2002) "ICT in Practice Awards – Secondary English Runner Up" at:
<http://www.becta.org.uk/news/practiceawards/awards/subjectteaching/2002/kneen.html>
(05/06/2003)
5. "Being creative with a word processor" at:
<http://www.smartgroups.com/vault/english.teaching/Using%20ICT?viewtype=Detailed&shownum=20&sort=type&dir=asc&startrow=1>, visited 5th March 2003
6. Birmingham, P. and Davies, C (2001) "Storyboarding Shakespeare: learners' interactions with storyboard software in the process of understanding difficult literary texts". *Journal of Information Technology for Teacher Education*, Vol. 10, No. 3 p 241-254 at:
http://www.kar2ouche.com/media/research-oxford_uni.htm
7. Birmingham, P. Davies, C and Greiffenhagen, C (2002) "Turn to face the Bard: making sense of three-way interactions between teacher, pupils and technology in the classroom". *Education, Communication & Information*, Vol., 2, No. 2/3 p139-161, *Oxford, Routledge-Falmer* at: http://www.kar2ouche.com/media/research-oxford_uni.htm
8. Brindley, S (2000) "ICT and Literacy" in: Gamble, N and Easingwood, N (Ed)(2000) *ICT and Literacy*, London, Continuum.
9. Buckingham, D Scanlon, M and Sefton-Green, J (2000) "Selling the Digital Dream – Marketing Educational technology to teachers and parents" in: Loveless, A and Ellis, V (Ed)(2001) *ICT, Pedagogy and the Curriculum*, London, Routledge Falmer.
10. Davison, J and Dowson, J (1998) *Learning to Teach English in the Secondary School*. London, Routledge-Falmer.
11. DfEE (1999) *The National Curriculum*, London, HMSO
12. Forman, M (2000) Email: "The New Way to Write a Phone Call – Perspectives of an ICT Novice". In: Gamble, N and Easingwood, N (Ed)(2000) *ICT and Literacy*, London, Continuum.
13. Gamble, N and Easingwood, N (Ed)(2000) *ICT and Literacy*, London, Continuum.
14. Harrison, F (01/06/2003) Arthur C Clarke sees e-mail for all at:
http://news.bbc.co.uk/1/hi/special_report/2949974.stm, 04/06/2003.
15. http://www.kar2ouche.com/media/research-oxford_uni.htm

16. James, B. (2000) "Bitesize Learning" in: Gamble, N and Easingwood, N (Ed)(2000) *ICT and Literacy*, London, Continuum.
17. Leask, M (Ed)(2001) *Issues in teaching using ICT*. London. Routledge-Falmer.
18. Leask, M and Pachler, N (Ed)(1999) *Learning to teach using ICT in the secondary school*. London, Routledge Falmer
19. Loveless, A and Ellis, V (Ed)(2001) *ICT, Pedagogy and the Curriculum*, London, Routledge Falmer.
20. Milwood, R (2000) "A New relationship with Media?" In: Gamble, N and Easingwood, N (Ed)(2000) *ICT and Literacy*, London, Continuum.
21. Norman, P. (2002) "Developing a critical framework for the evaluation and application of multimedia based resources in secondary Humanities subjects". APU.
22. Papert, S (1993) *Mindstorms*. Cambridge Massachusetts, Perseus Books
23. Seely-Brown, J, Collins, A & Duguid, P (1989) "Situated Cognition and the culture of learning". At: <http://www.slofi.com/situated.htm> accessed: 11/02/2002
24. Selinger, M (2001) "Teacherless Classrooms" in: Leask, M (Ed)(2001) *Issues in teaching using ICT*. London. Routledge-Falmer.
25. Thompson, J (15/12/1999) "Hard Fun 01 - Computer Games and Learning" at: [http://lingoworks.edithispage.com/discuss/msgreader\\$9](http://lingoworks.edithispage.com/discuss/msgreader$9) (04/06/2003)
26. TTA (2000) at: http://www.becta.org.uk/supportproviders/inspection/oth_sub/teach/sec/english.html. This page reviewed September 2001.
27. Twedde. S, Adams. A, Clarke. S, Scrimshaw. P and Walton. S (1997) *English for Tomorrow*. Buckingham. Open University Press.

APPENDIX A**Learning Contract**

Name: Paul Norman

Level (if credit bearing): Masters

Title of Work: A critical analysis of the effective use of ICT in English teaching and learning at Key Stage 3.

Learning Outcomes

- Critically evaluate learning theory and its impact on effective use of ICT in the teaching and learning of English.
- Identify best practice in using ICT to help raise attainment at Key Stage 3.
- Identify how ICT is best employed in English to support different learning styles.
- Critically evaluate the practice of using ICT in English to support creativity.

Learning Activities

- A literature review focused on the use of ICT in the teaching and learning of English.
- Identification of "best practice" in the use of ICT to support creativity in English through SEEVEAZ schools.
- A case study of an English project undertaken with extensive use of ICT.
- A report identifying how learning theory relates to the use of ICT in English and its impact on attainment.

Products (for assessment)

- Literature review and critical analysis of Learning Theory 3500 words
- Critical evaluation of SEEVEAZ experiences and Case Study. 3500 Words

Resources Required

- Access to English teachers and key stage 3 students in the SEEVEAZ secondary schools.
- Access to literature and online resources via APU library
- Access to tutors and other facilitators
- Online discussion with SEEVEAZ members and members in Hedley Walter group

Time Line

- Begin literature review 17th February 2003
- Write up literature review by 23rd March
- Critical Analysis of learning theory by 30th March
- Design Questionnaires and send out to SEEVEAZ colleagues by 7th April
- Visit SEEVEAZ schools for interviews and observation from 7th April – 1st May
- Present SEEVEAZ findings by 5th May
- Present Case Study by 3rd June
- Collate and hand in by 24th June

Signed:

Date: