

RESEARCH METHODOLOGY ONLINE - FINAL ASSIGNMENT**Table of Contents**

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Part 1 – Research Proposal

1. **Research Area:**

ICT in Education

2. **Research Focus:**

How ICT is being used to try and raise attainment in English and whether it is successful so far. Impact on learning and teacher skills, pedagogy, etc.

3. **Title:**

ICT – Enhancement or Disenchantment?

A critical investigation into the effects on learning of the use of ICT in English at Key Stage 3 in six Secondary School members of SEEVEAZ. (South East of England Virtual Education Action Zone)

4. **Rationale:**

Over recent years there has been a massive increase in funding and provision of ICT in schools. This has been driven by the belief that ICT can help to enhance children's learning and raise attainment. However, it is not clear if this is reflected in learning and attainment in English.

The fairly recent introduction of ICT and the still continuing disparity between different schools and sectors mean that actually measuring the effect of ICT on learning in English is notoriously difficult. Traditional measurements, such as Key Stage 3 teacher assessments are inconclusive because of the different pupil / computer ratios in different schools and the massive inequality in teacher skills. Essentially, it is currently impossible to compare like with like and, therefore, the validity of any research based on such data would immediately be open to challenge.

It is, however, still vital that we are able to measure the effect that ICT can have on learning and to be able to recognise the examples of good and bad practice of using ICT in teaching and learning that exist in schools. Only by sharing such findings and encouraging practitioners to use the technologies in an effective and innovative way can we ensure that the investment and development result in a raising of standards.

5. Literature Review

5.1 Definition of terms

In this area of research many terms are still being defined or there is no formal agreement on definitions at this time. In general, I will be using terms as defined in the Oxford English Dictionary.

RM- Research Machines plc. A manufacturer and reseller of Computer equipment to Educational institutions.

IBM Clone – A term used to define early Personal Computers. The first being made by IBM (International Business Machines) and copied by other manufacturers.

PC – Personal Computer.

Contextual / Situated learning - essentially means tailoring the use of ICT to the specific task in a way for effective learning to take place – as opposed to “off the shelf” pedagogies.

5.2 Literature Review.

The purpose of this review is to critically evaluate some of the work that has been done previously on my chosen research area. As a fairly new “issue”, research into ICT’s impact on attainment in English is limited and much of what exists predates current technologies and pedagogies by such an extent that it becomes invalid. I have attempted to identify sources which have direct relevance to my task while maintaining contemporaneous

relevance, also. I want to see how ICT fits into the teaching of English, generally and how it fits with other teaching initiatives, such as the Literacy programme.

Initially the key policy documents (National Curriculum (1999) and TTA Exemplification of Training standards for ICT in English (1999)) whilst providing an understanding of how central government expects ICT to be utilised in English; offer no expectations of its impact on attainment. The lack of reference to research findings from Government studies (ImpaCT and ImpaCT2) is disappointing. The only insight comes in the TTA document (Section 8bi) where the agency state that trainees need to be aware of how computer functions may change teacher expectation of pupil achievement and that teachers need to decide how to assess work done as collaborative group tasks. This is a simplistic and rather obvious issue. What the trainees need is advice on how attainment gains can be measured for identification of successful and unsuccessful learning approaches – as guided by existing research.

The background to the use of ICT in English is discussed by Tweddle (1997). She makes some important observations as to how the contextualisation of use (situated learning) is impacting on learning as regards ICT in English . This is more important than simply measuring differences in attainment, which, she argues (intelligently, I feel) has not ever be definitively proven to be linked to positive gains in attainment. More task or application specific researchers (Mioduser et al (2000), Lynch et al (2000)) don't discuss the impact that skilled teaching staff can have. It is possible that two groups using the same ICT-based system could differ, dependent on the skill and enthusiasm of the teachers. Just comparing similar groups is a seriously flawed approach, particularly with samples of 8 / 12 / 60 students. A large number would need to be taught and tested, preferably by the same teacher using two systems with a deliberate concentration on behavioural monitoring (i.e. not

biasing outcomes through modifying their own behaviours) for a fair test to be judged. The first ImpaCT study, cited in the ImpaCT2 (1999 – 2003) Study, claimed a 5% improvement in attainment for groups with high ICT impact. Could it be that “high ICT” groups only exist in well-equipped and resourced schools, where the atmosphere and ethos is more conducive to learning? There is, I would argue, little to support the argument that the ICT is solely responsible for the increased attainment, though it may well be a factor. At least Leasch et al (1999) recognise the problems of a small sample whilst claiming a notable grade improvement in an examination languages group who used videoconferencing.

Along with Tweddle, Tolmie (2001) and McFarlane (2001) argue that trying to measure the impact of ICT on attainment is, on its own, a flawed approach. I agree with their idea that identifying successful techniques for contextualising the use of ICT tools and developing its obvious advantages as a motivator and a tool for rebalancing pupils’ conceptual misunderstandings is a more promising approach. However, I would argue that to judge something as successful in an academic sense, we still need to demonstrate a value added advantage to using it. In this case, showing a gain in attainment is a sound approach.

6. **Research Questions:**

- How is ICT used to target raised attainment in Key Stage 3 English?
- How is ICT used to enhance Learning?
- How is ICT used to support Teaching?
- What effect does ICT have on student engagement in KS 3 English?
- Measured on a per task basis does use of independent learning through ICT result in higher attainment compared to traditional “delivered” methods.

7. **Methodology**

The Methodology for this research task will be primarily naturalistic and interpretive as it will rely heavily on gathering teacher observations. These observations will be subjective and specific to the teacher's own situation. Perception, rather than empirical evidence, will be the main focus of the task with the teachers' experiential observation on ICT input related to attainment being the outcome.

Some empirical evidence in the form of attainment data will also be required to see if there are any notable trends in attainment over the past few years. The focus is on the time span which best encompasses the Governments initiatives in ICT- such as NOF training and increased funding. This also supports validity with only current ICT pedagogies and technologies being examined.

The early reading suggests that the interpretative approach is the only real way of designing an effective study as the research criteria would be too "unscientific" for a positivist approach.

8. Data Collection Methods

Data will be collected primarily through questionnaires / surveys. The groups questioned will be English subject teachers and Heads of Department. It may be possible to use the interview approach, also, where the teacher has a preference (some consider a chat to be nicer than a piece of paper!) as this will engage them in the process and ensure a personalised feel to the research

9. Resources

The resources required for this task are:

- Time for creation and evaluation of questionnaires
- Time for distribution and collation of questionnaires
- Funding for photocopying
- Time for informal discussion with English department staff
- Access to suitable past research papers and materials

10. **Ethical Issues**

The Key ethical issues to consider in the execution of this research project are:

- To be sensitive to the existing demands on teachers when conducting surveys
- Ensure that Heads of schools and departments give permission for staff to be surveyed
- Only distribute findings within the agreed audience
- Ensure anonymity where promised

11. **Timescale**

The timescale for the project is flexible but for initial purposes can be broken down as follows:

- Week 1-6 - Literature review
- Week 7-12 – Pilot Study
- Week 13 – 16 – Evaluation of Pilot Study and Redesign of questionnaires
- Week 17 – Identification of schools and preliminary contact
- Week 19 – Permission dependent – contact Heads of Department
- Week 20 – Informal contact with English staff to discuss project aims
- Week 23 – Distribute Questionnaires to English staff

- Week 24-26 – Interviews where requested
- Week 27 – Collection of Questionnaires
- Week 28-30 – Collation or data
- Week 31-39 – Analysis of Data
- Week 40-52 – Write up and publish findings

12. **Indicative Bibliography:**

- ImpaCT2 interim findings (1999 – 2003), Becta / NGfL, London.
- Lynch, L. Fawcett, A. and Nicolson, R. (2000) “Computer-assisted reading intervention in a secondary school: an evaluation study”, in *British Journal of Educational Technology* Vol 31 - No4, UK.
- DfEE and Qualifications and Curriculum Agency (1999), *The National Curriculum for England*, Department for Education & Employment, London.
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- Mioduser, D. Tur-Kaspa, H. & Leitner, I. (2000) “The learning value of computer-based instruction of early reading skills”, in *Journal of Computer Assisted Learning*, Blackwell Science, Vol16, pp54-63, UK.
- Tweddle, S. (1997) “A retrospective: 15 years of computers in English”, in *English in Education* 31.2, UK.
- Tolmie, A. (2001) “Examining learning in relation to the contexts of use of ICT”, in *Journal of Computer Assisted Learning*, v17 pp235-241, UK.
- McFarlane, A. (2001) “Perspectives on the relationships between ICT and assessment”, in *Journal of Computer Assisted Learning*, 17 pp227-234, UK.

Part 2 – Justification of Research Methodology

13. Justification of Methodology

As discussed in Part 1 of this assignment it is my expectation that the Methodology for this research task will be primarily naturalistic and interpretive. Within this section I will attempt to justify this proposal through discussion of existing examples and argument against the alternatives.

To begin with, let us consider the underlying ontological and epistemological assumptions that will be made. As I will discuss in more detail, the main philosophy behind my research will be interpretative, rather than positivist. Because of this I will assume that any teachers asked to provide data will treat questions as congruently as they can, will demonstrate normally accepted “standardised” professional understanding of terms and will behave as normally as possible in the course of the research. To undermine any of these assumptions will challenge the validity of the research. It will also have to be assumed that, should they be included in the research, students will also behave reasonably and will answer questions congruently. It may be necessary to explain some elements of the research process to students, but this must be done in such a way as to limit any manifestations of “unnatural” behaviour or responses.

We will now consider the case for my chosen research methodology and its underlying philosophy. I need to gather a small amount of statistical data. Some would argue that it is not possible to have the collection of statistical data within a qualitative approach, as any attempt to allow subjective interpretation may contaminate the reliability of such information.

“Reliability is the extent to which a test or procedure produces similar results under constant conditions on all occasions.” (Bell 1999:103)

However, within the context of this research, the statistical data in itself cannot stand by itself. It would not be possible to prove, either way, a link between attainment and use of ICT. Therefore the data will be used in an interpretative fashion by discussing and analysing the views and observations of the professionals on how they feel the use of ICT has effected attainment. This is an interpretative approach and does not belong within a positivist philosophy.

A good example for controlled, positivist data collection and collation comes from Lynch et al (2000). In this example the need was to determine the effect of computer assisted reading intervention in controlled tests. The results were measured through pre and post-test data. No additional personal input was within the test criteria, thus keeping the test uniform and narrow. A similar approach was discussed by Tolmie (2001) quoting his earlier work, in which, again to measure the success of a computer-based learning system, a controlled test was carried out with data being collected through the pre and post-test data. Again the realities of interpretative thinking are not allowed to intrude on the raw, sterile data-based nature of the investigation. However, I would argue in both cases that you cannot guarantee a completely controlled test, with different groups being exposed to slightly different experiences in the experiment, let alone their different experiences as human beings. As Cohen and Manion say:

“behaviour and , thereby, data are socially situated, context-related, context-dependent and context-rich. To understand a situation researchers need to understand

the context because situations affect behaviour and perspectives and vice versa.”

(Cohen & Manion 2000:137)

So the data and its interpretation are intrinsically linked with context of delivery. As contexts differ between groups, due to their ‘organic’ humanistic nature, this supports the argument for the naturalistic philosophy.

I would argue that the very nature of human behaviour makes all mixed group experiments impossible to run using a positivist approach, with every conceivable potential influence being a valid consideration when collecting the data. From “does the teacher treat child A slightly more benevolently than child B?” to “What socio-economic demographic is child C’s family a member of?”. As Cohen et al (2000) say about naturalistic epistemology:

“...the social world can only be understood from the standpoint of the individuals who are part of the ongoing action being investigated; and that their model of a person is an autonomous one,..” (Cohen et al, 2000:19)

This basically rejects any possible examination of data without consideration of each individual, particularly in the small scale study that is being proposed here.

The essential requirement within this part of my proposed research is to examine trends in attainment and compare that to increased investment and use of ICT. Without any concrete way of determining absolute cause and effect on attainment, due to the generalised nature of the data gathered and the short history of the ICT influence – I would argue that the interpretative approach is the only option.

The second element of the proposed research is to examine the observations of teachers and possibly students, to determine whether there has been any link between use of ICT and increase in attainment, within the defined area of study. Within this element I propose a continuation of the qualitative / naturalistic / interpretative approach and will extend the previous argument further.

What is being examined in this part of the research is the “perceived” effect of using ICT. To begin by arguing against the positivist approach – it is not possible to use a scientific based analysis of the individual subjects because the research is looking for personal evidence of improved attainment – “I believe he did better than he would have!”. It may be possible to analyse attainment for a given task against subjective norms or averages, but you could never prove that the gains were entirely down to use of ICT even if it was conducted as a controlled experiment. In this case the examination is general, not specific and is being drawn from a wealth of non-controlled experiences.

A positivist might claim that you could still take an objectivist view and say that child A has improved on their average level of attainment. However, this may be due to other extraneous experiences and not ICT in itself. More teacher time, extra help from parents, better innate understanding of a concept or even better quality non-ICT based resources may all have had an effect.

A good parallel could be drawn with Tweddle (1997) in her retrospective of 15 years of ICT in English. In this case she is looking purely at the experiences and views of the teachers she examines and previously written research into the topic. There is no statistical basis for the

conclusions she draws at all, at least not immediately apparent. She is attempting to distil the experiences, observations and views of a wide range of English teachers and researchers to draw a broad and well-founded raft of conclusions. This is a valid form of research and, from the rigour and validity points of view, the greater the breadth of experience drawn on, the stronger the case.

Likewise, the ImpaCT2 (2000-) study is drawing very strongly on an interpretative approach using Phenomenology, where it is:

“..possible to identify characteristically different ways in which the object or an experience is discerned. These different ways of experiencing objects significantly alter the way an individual understands the world” (NGfL, 2000:4)

I would argue that the statement itself suggests that any mixed group of humans will be significantly different from another. However, in a group by group controlled experiment, both groups must be absolutely identical. This isn't to claim that ImpaCT2 isn't using any positivist approaches. In the measuring of attainment strand of the study the technique is pure statistical interpretation or analysis, with data being sourced from one central agency – so, as far as the researcher is concerned there is no individual to consider. As a technique, though, that will shed little light on what works well with what sort of student in what sort of environment.

To return to the argument for an interpretative approach, the essential requirement of this part of the proposed research is to find out what experiences teachers and students have had and how they feel they have been influenced by, or even constrained by, the use of ICT. The

experiences will, by their very nature, be entirely personal. Two teachers with similar qualifications and backgrounds may have had different experiences of a particular mode of delivery. The views that they express could be very different, but both views will be equally valid. In an interpretative approach it is the individual experience which is valid and important. As Lincoln and Guba in Cohen et al state:

“qualitative methods sit more comfortably than quantitative methods with the notion of human-as-instrument”. (Cohen & Manion 2000: 138)

I interpret this to mean that when dealing with human perception, the qualitative approach is more appropriate. It is by collecting as many examples of experiences as possible that the researcher can start to see the trends in practice and start to identify what pedagogies and techniques prove more or less successful in the view of the participants. The experiences will be shaped not just by the teacher, but by all of the extraneous variables that are discounted in an positivist view. Personal bias, experience, socioeconomic factors, school funding issues – all of these become valid considerations within this interpretative view of reality, because they all help to shape the experience. Thus, as Cohen and Manion claim, the:

“..understanding of individuals interpretations of the world around them has to come from the inside, not the outside. Social science is thus seen as a subjective rather than an objective undertaking, as a means of dealing with the direct experience of people in specific contexts.” (Cohen et al, 2000:20)

So, when trying to determine which techniques have worked well with a multitude of different children, it is the reflective experience of the teacher which is important. The

student may achieve no difference in their final attainment level but may have had a greatly enhanced and engaging experience. A purely positivist approach can not demonstrate that easily.

To summarise the arguments. Initially, statistical data needs to be gathered to show if there are any trends in improved attainment that could conceivably be linked to trends in increased spending and application of ICT. Although it sounds positivist, the fact that the data is going to be used to help form perceptions about effect dependent on the responses of the sample groups denies the positivist philosophy and demands a qualitative and interpretative strategy.

Secondly, the views and experiences of the people themselves and the teachers should be gathered to determine how people feel using ICT has affected their learning and attainment. If the experiences have been positive we may see a general inclination toward the view that ICT has helped students raise their attainment. This will be an individualistic view and not possible to prove statistically, because there are too many variables that could affect the experience in an uncontrolled environment. Therefore, this section also requires an anti-positivist, interpretative research approach to gather evidence from individuals.

Having collected the data it may be possible to develop a hypothesis that increased funding and use of ICT can be linked to raised attainment (should that be the outcome) evidenced by the observations and subjective experiences of professional educators.

Part 3 – Justification of chosen Research Methods

14. Justification of chosen Research Methods

It is essential at this point in the assignment that I can fully justify my choice of research methods, not just by arguing for those methods selected, but also by justifying the rejection of other potential methods.

There is a good range of research methods available for a research project of this sort. Action or practitioner research, analysis of documentation, questionnaire-based research, interviews, observation, experiment or even case studies. It is important to be able to say why the majority of these are unsuitable for my needs and why questionnaires are most suitable. I will begin by arguing for the non-inclusion of the inappropriate methods.

A popular approach to educational research is “Action Research” or “Practitioner Research”.

Dave Ebbutt (1985) uses his own definition enhanced with quotations from Stephen Kemmis (1983) which says that Action Research:

“..is about the systematic study of attempts to improve educational practice by groups of participants by means of their own reflection upon the effects of those actions.

Put simply action research is the way groups of people can organise the conditions under which they can learn from their own experience. (Kemmis)

Action research is trying out an idea in practice with a view to improving or changing something, trying to have a real effect on the situation. (Kemmis)”

(Ebbutt (1985) in: Hopkins 1993:45)

So essentially, Action Research is about a practitioner putting ideas into his or her own practice, and therein lie the reasons for my rejection. I am not an English teacher, but wish to study the effects of a project run within English. Short of retraining so that I can take up a group, my ability to be an Action Researcher for an English project is non-existent. As a result this style of research, admirable and valuable though it is in many situations, and certainly something I would do in my own practice as an ICT or D&T teacher, cannot be used for this research project.

The second approach I wish to examine is that of the case study. Yin (1984) is cited in Cohen and Manion (2000: 183) as having recognised three types of case study, explanatory, descriptive and exploratory. The Case Study itself is usually an interpretative approach which allows an examination of a bounded system (class, school) and provides examples of real people in real situations. (ibid.: 181). The descriptions Yin gives contextualise the approach to the study or what the researcher is trying to achieve. It could be argued that I could conduct an exploratory case study of an ICT-based English project. Indeed, as Nisbet and Watts (1984) point out in their strengths and weaknesses of case study:

“ They catch unique features that may otherwise be lost in larger scale data (e.g. surveys); these features might hold the key to understanding the situation.” (Nisbet and Watts (1984) in: Cohen and Manion 2000: 184)

Within the project I propose, it is important not to miss any potentially important features, but I would argue that although important, that very strength of the case study approach is also its weakness. I am not convinced that by examining one bounded group, a unique

feature may not be exactly that – unique, and never repeated across other groups. As Nisbet and Watts also write:

“The results may not be generalisable except where other readers/researchers see their application.” (ibid: 184).

It is important in my research project that I can form generalised hypotheses and interpretations of my findings. Does using ICT to support learning in English result in raised attainment, motivation, etc? “Yes, but only in one bounded group” is an unsatisfactory outcome for my purposes, although I accept that some research may require exactly that approach. For this reason I have chosen to discount case study as an approach, despite its obvious strengths.

Next, I will examine the experimental approach. Usually associated with the positivist philosophy, this approach requires a controlled environment with broadly similar conditions for each repetition. My proposal requires that the study be carried out over the seven or eight large secondary schools of the Education Action Zone. Immediately there are difficulties with trying to use the experimental method. It would not be possible to ensure even relatively close conditions in each school. The schools are all different, with different demographics and intakes, the funding of ICT varies greatly between schools and so on. Taking this argument a step further it could be argued that the experiment itself would have to be carried out by the Researcher or by the same English teacher on each occasion, a technique used by Lynch et al (2000: 335) in their evaluation study of a computer assisted reading intervention study. Although the school’s own Special Needs Coordinator was used, the researchers themselves carried out the intervention, ensuring conformity to project ethics

and aims and continuity in approach. Without this continuity, it cannot be guaranteed that all students will get the same experience, therefore affecting the validity of the research. Not all experimental studies worry about this, though. Mioduser et al (1999) simply ensured that the existing kindergarten teachers of their study groups were given the same training. This may ensure a broadly similar approach, but the relationships between teacher and students, their own feeling about the project will all skew the results to some extent. This is the argument I used in Part 2 for rejecting the positivist philosophy in the first place, and I feel it is an equally valid argument for rejecting the experimental approach.

Perhaps one of the easiest methods to discount is the analysis of documentation. Although the first part of my proposal requires an analysis of statistical data there is, essentially, no documentation to examine. The research will be carried out within the context of a newly developed task, so there can be no documented evidence to analyse for this specific context within these specific schools. It may be possible to analyse documentation from similar projects, but I don't believe this would serve any purpose for my needs.

Harder to discount are some of the other interpretative research methods. Use of interviews is a method which I have seriously considered and would most likely use as a secondary research method to support and enhance the data collected through other methods. I believe it is as likely to produce useful results as the use of questionnaires, if not more so. A good justification is given by Bell:

“Questionnaire responses have to be taken at face value, but a response in an interview can be developed and clarified.” (Bell 1999: 135)

This is a very attractive benefit of using the interview approach and, if the project was slightly different, it would be my preferred choice of method. My main justification for questioning this method is purely one of logistics. The project is to take place over a geographical diverse area within a large number of schools. There would be no additional resources available to allow me to travel around for the purposes of interviewing. A tele or video-conferenced interview would be possible, but would rely on the good will of the staff involved as it would involve a generous donation of time. Essentially, although philosophically sound, the interview method would be difficult to use on the basis of time and convenience for all parties, however, I do feel it is a sound secondary method.

The same argument can be used for observations. I would value these highly for researching this project in just my own school, but to be realistic, I would not want to observe in just one school out of a group of seven or eight as I feel the project requires a wider evidence base. It is again important to stress that for this project no additional resources are available in terms of travel costs and supply cover, and, in addition, observation will only be successful if those being observed have time to agree criteria with the observer and to sort out ground rules (Hopkins 1993: 76). It is also important in observation to have a set of theories or ideas, which the observer will use to explain the behaviours observed, but as Hopkins says:

“Although we constantly need to use our personal theories to construct our worlds (and without doing so would not last long in the classroom!), this uniquely human habit is not the greatest asset during classroom observation.” (ibid: 77)

In other words, the ability to theorise an explanation for something that occurs during the activity could be based solely on the observer's own knowledge and experience and will be

diminished in validity for such a personal interpretation, for this reason I would rather consider the interview approach in preference to the observation.

Finally, the questionnaire-based survey. This is my preferred method for several reasons. These can be divided into several types: convenience for both myself and the teachers involved, ease of remote administration and an interpretative methodology underpinning the method. Many of these factors have already been mentioned in rejecting the other methods, but here I shall attempt to justify the selection of this method under those headings. It is important to state that I won't be discussing questionnaire design in this section, although I am fully aware of the importance of that factor as a key feature in the data collection method.

First, convenience. It is easy to baulk at the thought of a questionnaire as the ethical issue of intruding into a teacher's time is always at the forefront of the mind (Cohen and Manion 2000: 245). However, I would argue that the time taken to answer a questionnaire is no more constraining than having a meeting to discuss criteria for observation or actually taking part in an interview. So it is no more time-consuming than other methods. In fact, many teachers prefer questionnaires, because they can be done at any time. Secondly, ease of administration. Once the questionnaire has been designed it can be photocopied and sent out to the teachers involved by mail, emailed as a file or even conducted online. The responses would be sought for a particular date and any failed returns could be followed up within a set timescale. The ability to effectively 'fire and forget' until the returns come in is very attractive. There isn't the same burden of organising travel, preliminary meetings, observations and feedback sessions that could be incurred by using an interview or observation method. It may be argued that some teachers would want to clarify points on the

questionnaire before answering and a remote approach may hinder this. However, if the paper has been carefully designed and has been piloted, the majority of those issues should have been ironed out. The final argument for the use of questionnaires relates to my chosen methodology. The main aim of the task is to gather observations from practitioners which can then be interpreted to develop a view of the effect of using ICT to enhance learning in English. Those observations can most easily be gathered via a questionnaire, which gives the respondent room to fully record their thoughts and feelings. The remoteness of the researcher may well encourage a high level of congruence, although care would have to be taken in the design of the questionnaire to encourage – not deter this. It is true that there would be limited flexibility in the responses as the respondents will work within their interpretation of the question. (Cohen and Manion 2000: 245), but this shouldn't hinder conclusions being drawn. Again, the responses may be fairly unsophisticated (Cohen and Manion 2000: 245) but should be sufficient in a larger sample to help extract the essential trends in experience.

To summarise the previous discussion, I would consider that, overall, the questionnaire, while being far from the perfect research method in general terms, is the best selection of method for this particular project. However, as a form of insurance and to help develop a wider evidence base I would want to include targeted interviews, just one or two within each research school. This would allow for triangulation of research to ensure validity of data and rigour of process. The limited number would help address the concerns over time and resourcing by minimising disruption for all involved and may have additional benefits in allow the research subjects and teachers to engage with the researcher in a less remote way.

Part 4 – Pilot Project

15. Pilot Project

15.1 The Pilot School

The pilot school chosen was Saffron Walden County High School, in North West Essex. The school is a specialist Technology School but remains fully comprehensive and delivers English as a mixed ability approach in early Key Stage 3, but moves to ability setted groups by Year 9.

The school is a key member of the South East of England Virtual Education Action Zone (SEEVEAZ) and has benefited from increased funding in ICT provision. The Zone is the target group in the main research proposal. In addition all full time staff have their own laptops and projectors are readily available in all subject areas.

Training in ICT has been undertaken through the NOF training programme, with the school acting as its own training provider. Staff skills and confidence have been increasing year on year and use of ICT is now more consistent. In English, special projects have been developed to encourage ICT-based learning. Students are given a good variety of opportunities to support their learning with ICT and can work at levels which challenge and motivate them. Considering this, no research has been conducted into whether these new learning methods are actually supporting raised attainment or are refocusing learning.

15.2 ICT Facilities

The school is very well resourced with a pupil to computer ratio of approximately 5:1; in advance of Government targets. In the English Department there is one room

provided with 15 computers for dedicated English use. In addition the area can book into other facilities in the school when available – although these opportunities are decreasing as the ICT demand increases. The department also has access to projectors, digital cameras and scanners as well as shared printing. ICT access is provided from an RM network with all students having their own user account, email account and all computers having internet access. The computers are standard IBM clone PCs running RM connect based on Windows 98 and with Microsoft office on all machines.

15.3 Conducting the Pilot research.

The pilot research was to test the basic premise of the research proposal through the administration of two questionnaires. The first to be completed by the Head of Department and the second by a team of English Teachers. The HoD questionnaire focused more on perception of the whole department's skills, understanding and outcomes while the individual teacher questionnaire focused on self-perception of skill and student attainment benefits. The teacher survey was tested on three colleagues.

15.4 Evaluation of Pilot Project

15.4.1 Head of Department Survey

The feedback from the Head of Department survey was generally positive with several crucial “constructive criticisms”. Essentially there was too much of a requirement to provide hard data which the HoD found to be difficult to do in the time set for turn-around. Essentially, this was caused by the person in question being

new to the post – the previous incumbent having recently moved on. It was suggested, fairly, that data information could be targeted or sourced in a different way. In a busy term, with a heavy workload, the HoD didn't mind answering the other questions but wasn't prepared to go on a data hunt for me. Having dithered over including this question I feel my discomfort was justified and would look to target this question at the school data secretary for the real project. The HoD was also kind enough to pick up a couple of typos that I had missed and these would need to be corrected for fear of giving the impression of an amateur approach. For the remaining questions the HoD felt that there were some improvements that could be made particularly with use of language, but that the questions were well laid out, easy to answer and not particularly time-consuming. I have concluded from this that, although my own use of language is accurate enough for my purposes and sufficiently academic for my own needs, I should pass the questions through a "proof-reader", perhaps the Head of English herself; to help ensure the best use of language for the survey. Therefore some re-writing may be necessary.

15.4.2 English Teacher Survey

This survey was considered much more appropriate to the task with only one real complaint from all three staff. The questions which asked for a grading to be awarded were considered harder to answer and less easy to understand. The staff felt they didn't really know how to answer the question. I actually disagree to an extent with this interpretation. I feel the questions are good and the options provided are well chosen and worded, however, I do concede that there is room for improvement in the explanation of how to approach the question. This would need to be addressed before the real project. Other comments included the use of language again and

many positive comments on ease of use and speed of completion. One member of staff also said it was nice to spend a few moments reflecting on an issue they rarely give any thought too – perhaps an indicator of the need for the research!

15.5 Pilot Research Findings

Findings of research on this scale could be considered to be meaningless, due to the small sample. I was pleased to note that in general staff do believe that using ICT to support learning in English can be linked (at least in their perception) to raised attainment, although I was surprised that they didn't generally see a link between innate ability in the subject to ability in ICT – which is something I have observed. The staff still feels under-resourced and lacking time to apply ICT, despite the fact that they are way ahead of the majority of schools in this country for ICT resources. It is perceived that students do a lot more ICT supported work at home than they do at school, but most didn't feel that students were more skilled than staff (a change from a couple of years ago). Most staff still see ICT as a tool for presentation first and foremost, which is disappointing to me as I feel this is the most limiting use of the technology.

15.6 Conclusions

I consider the pilot project to have been a success, on the whole. Although certainly not an unmitigated success as there are many things that will need to be subtly altered or completely changed in order for the real project to run smoothly and successfully. The changes to language are possibly a minor concern to a technologist like me – but when targeting the English department I feel it would be unwise to generate antipathy through an easily controlled feature. The questions should give me the information and data I require to generate an image of perception within the

seven schools. Whether that would be sufficient to answer all of my research questions, I am less confident of, but I do feel it would be close.

16. **Bibliography**

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