

The psychology of trainee teachers' use of ICT: a case study, 1995-2003

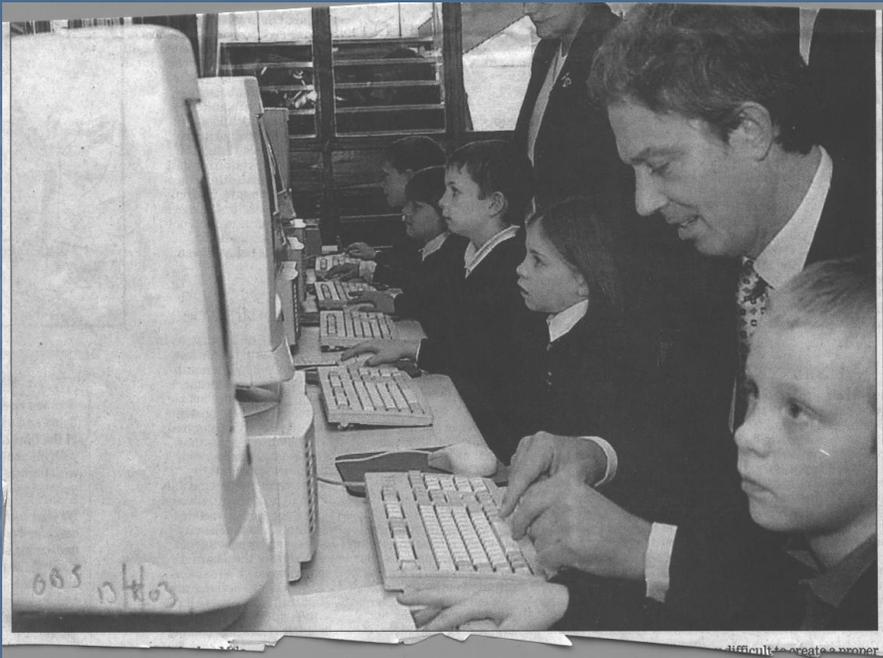
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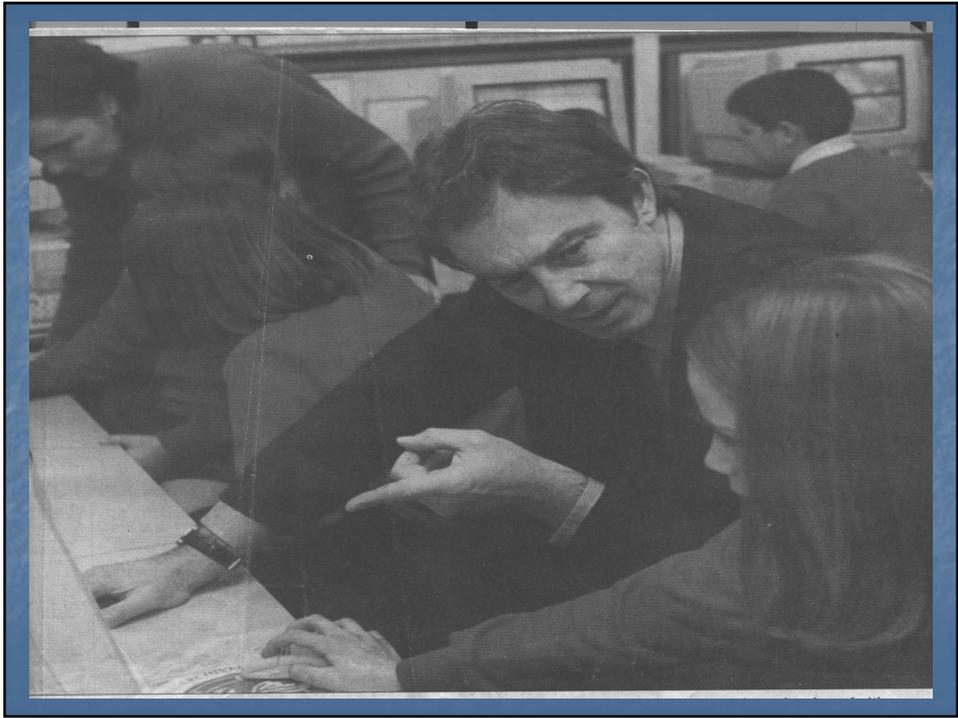
Rationale for the study:

- If computers are so wonderful, why are so few teachers and trainee teachers using them (in spite of considerable pressure on them to do so).
- (ImpaCT2 Report (2002) –over 60% of UK teachers make little or no use of ICT).
- Cochrane, 1995 – 'In future there will be two sorts of teacher, the ICT literate, and the retired.
- N.B. 1998 DfEE regulations relating to ICT for trainee teachers.

Politicians and ICT

- “Ever since Harold Wilson spoke of the white heat of technology, politicians and decision makers have assumed that silicon offers a hot-wired short-cut to voters’ hearts... A succession of ministers from Benn to Baker embraced technology with photogenic relish; when did you last see an education minister in the media without a computer in the background?’ (Stephen Heppell, *Observer*, 8 January 1995).

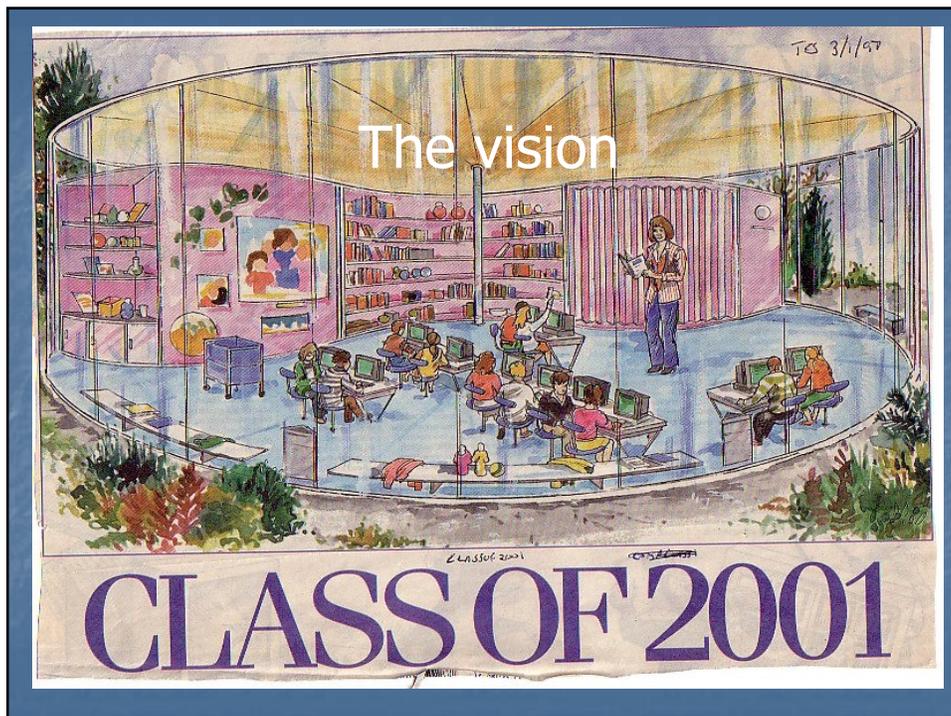




... on the right, Estelle Morris and Tony Blair at the announcement of Curriculum Delivery

- 'Computers seem to have a powerful delusional effect on some people and should not be allowed near the weak minded or gullible.'

(Weigenbaum (psychologist) *Guardian*, 12 December 1996).



Consequences of this vision for ICT

- Networked ICT suites paradigm
- Cross-curricular delivery of generic ICT competence

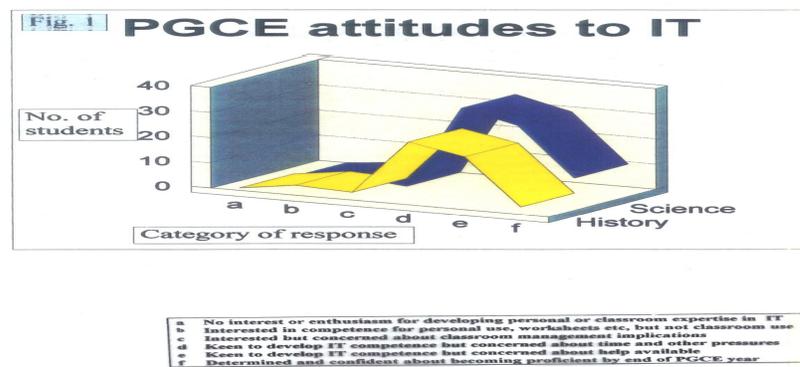
Mistake

- Failure to ask teachers and trainee teachers what they wanted from ICT.
- Underestimating complexity of factors influencing effective learning and part that ICT plays in this.

Naughton, J. (1998) Observer, 22 March

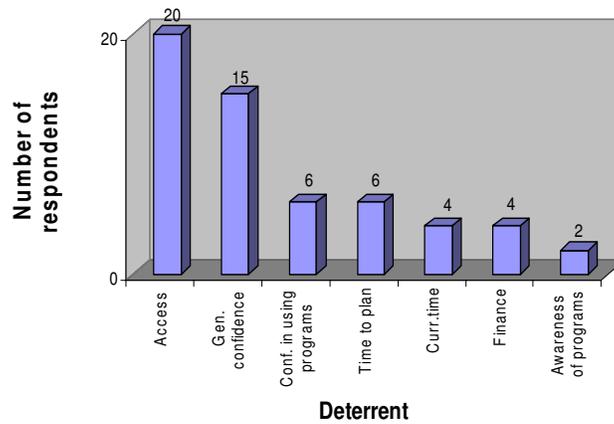
- 'It's not every day you encounter a member of the government who appears to understand the net. Most politicians (Clinton, Blair, Blunkett, to name but three) see it as a pipe for pumping things into schools and schoolchildren.'

Trainee teachers' attitudes to ICT



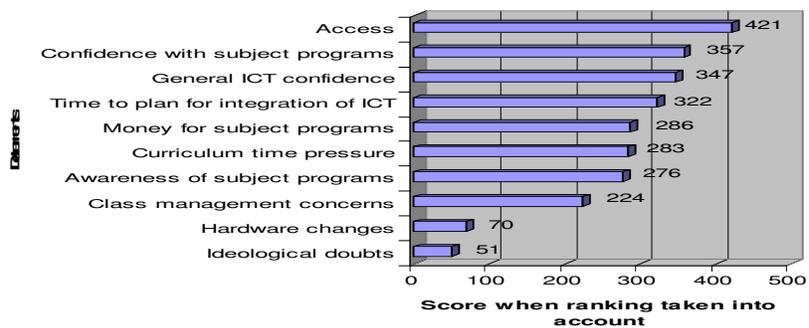
Trainees' perceptions of barriers to ICT use - 1996

Most influential deterrent to computer use



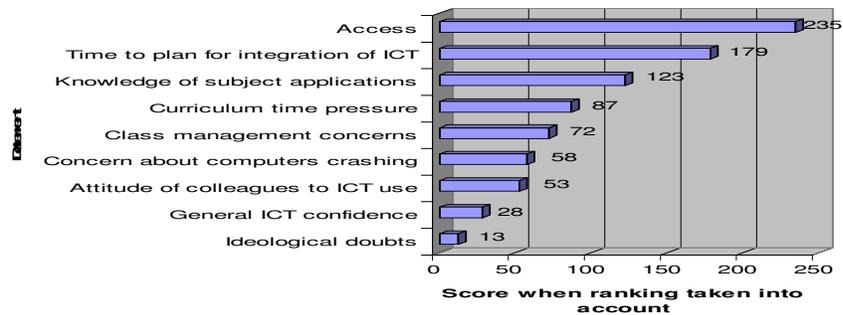
Ranking of deterrents to ICT use - 1996

Ranking of deterrents to ICT use



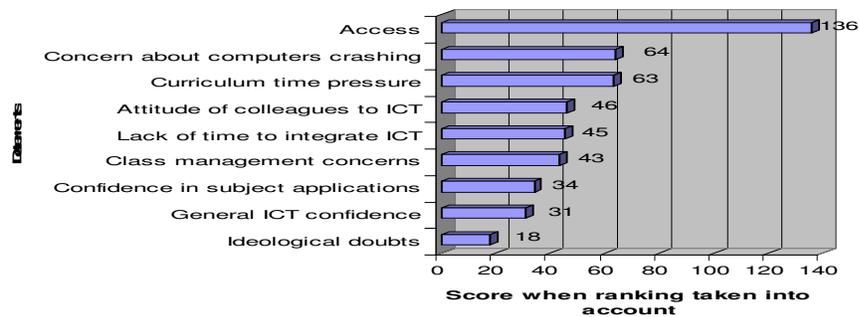
Ranking of deterrents to ICT use - 2000

Ranking of deterrents to use of computers



Ranking of deterrents to ICT use - 2003

Ranking of deterrents to ICT use

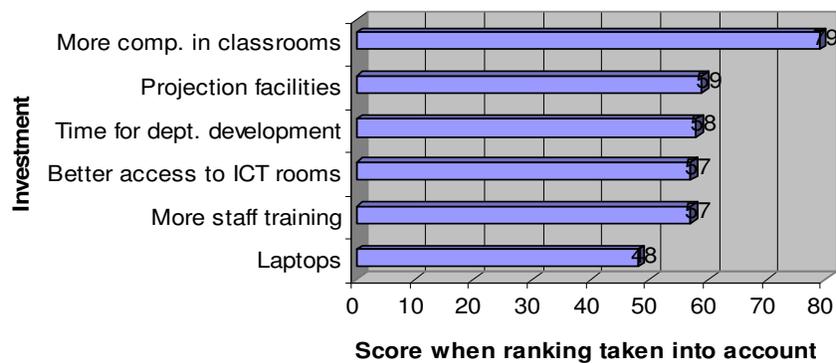


'There's all this fuss and pressure to use computers in your teaching, but that's exactly the problem – there aren't any computers in my classroom.. It's difficult to book the computer rooms, you have to do it weeks in advance, and it's even harder to get hold of a data projector.'

(Quote from trainee, 2003)

Trainees' views on investment in ICT - 2003

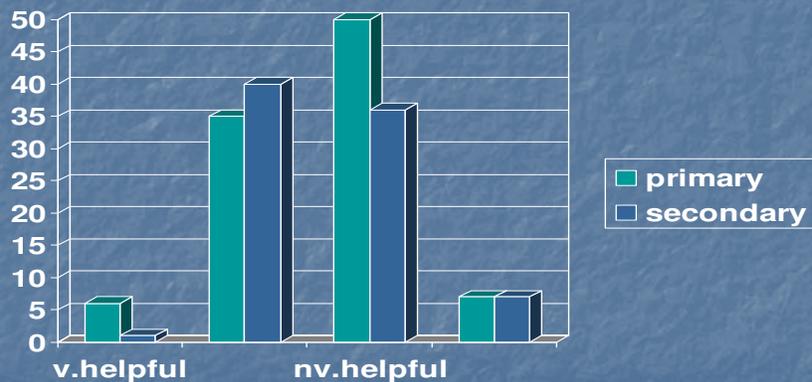
Ranking of preferred investment in ICT



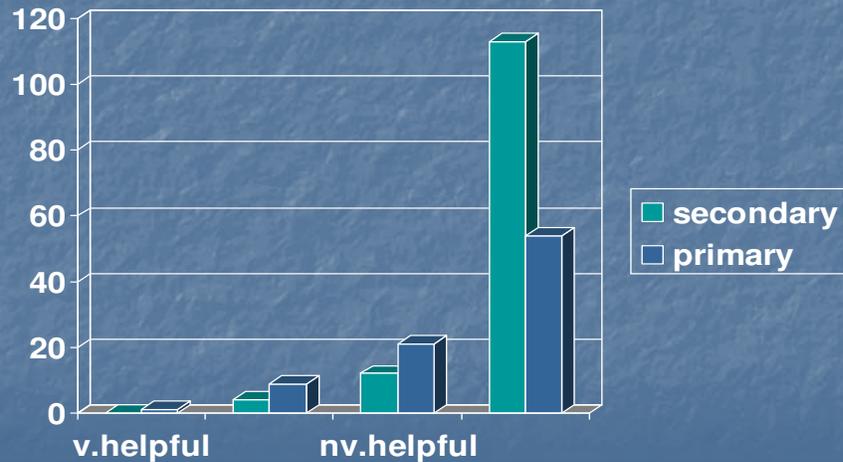
What did trainees find unhelpful in developing competence in ICT?



1. The 4/98 Standards for ICT (Annex B) – over 15 pages of specified competences in ICT, all to be met by end of course or trainee cannot be passed



2. Online ICT skills test



Comments

- 'Very, very, very unhelpful'
- 'Insulting'
- 'Pointless, pathetic and utterly ridiculous'
- 'Futile'
- 'A waste of time; another hoop to jump through'
- 'Unrelated to subject or to common sense'
- 'Unhelpful and patronising'

3. Information overload about ICT (Did you read the information about ICT?)

- Trainee A: (laughs and shakes head) 'did anyone read right through them? No just too much to take in.... not much use really.'
- Trainee B: 'No, there's just too much to read.... It needs condensing or summarising more.'
- Trainee C: 'Not really... I did glance through it but there was too much to take in- perhaps if it had just been 2 pages but it was quite off-putting.'
- Trainee D: 'Not very... a bit dense really.. off-putting, too much to take in.'
- Trainee E: 'I don't think I even looked at it.'

What did have an impact then? What did trainees find helpful in enabling them to use ICT in their teaching?

1. High-challenge/low pressure activities (i.e. the exact opposite of the online ICT skills test)



2. Working in groups?

- 'You felt you were all learning together.. gradually getting to grips with things.. things like the session on making web pages... how to write code, step by step. I was with J.; he knew how to paste clip art into slides... it was just an easy and relaxing, non-threatening way of quickly picking things up, sharing expertise. You could make mistakes or not know things together and it didn't matter.'
- 'Working as part of a group? It helped for me working in groups, I learned loads from R.; prefer that to struggling on your own.'

But....

- 'One of the problems was that the group I was in had someone who was really good at ICT, but they went too quickly... you just got lost.'
- 'Working as part of a group? Depended on the composition of the group, if you were all about the same it worked well, if you were with one of the stronger ones, they tended to do most of it.....'

3. Seeing someone doing something you wanted to be able to do

- 'When you showed us that picture where you could blow bits of it up using PowerPoint.'
- 'When X came in and showed us how to make a web page in HTML... when you say it change from code to a screen.'
- 'When we used PowerPoint and the net to do presentations on significance- good fun and easier than you thought it would be.'

4. Time to 'play around' with ICT: explore things on the internet, experiment with Powerpoint etc, learn from each other, do things directly related to their lessons rather than generic ICT tasks.

5. The facility to use whole class projection facilities within their 'ordinary' classrooms as a component of their everyday lessons

In the period between the preliminary investigations in 1995 and 1996, and the third phase of data collection in 2003, there were significant changes in trainees' attitude to the use of computers and their perceptions of barriers to the use of ICT in subject teaching. Although many trainees' were still not making regular use of ICT in their classroom teaching, the *reasons* for not using computers had changed quite radically. If policymakers are to achieve their aim of embedding ICT in subject teaching, they need to take into account these changes.