The Experience of Practitioners with Technology-Enhanced Teaching and Learning: A Response


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**Introduction**

Naidu, Cunnington and Jasen (2002) introduce their article as a research project with a particular focus on how the use of information and communication technology is influencing teaching practices and student approaches.

More specifically the authors assert that this paper takes us beyond the surface understandings we presently hold… Our goal is to look beyond superficial data and examine closely how information and communications technology is fundamentally influencing the nature of the teaching and learning transactions (p.1)

The article then begins, as articles so often do, in a rather grandiose fashion… *Educational institutions all around the world are beginning to pay greater attention to the improvement of their teaching and learning practices.* How can anyone take this sort of statement seriously? It is one of those one-liners often used to generate some solidarity over a chat: often stated and seldom questioned. If however we considered the statement on a less superficial level we can see that the statement is flawed. The authors are suggesting that educational institutions have not, in the past, focussed on improving teaching and learning practices as they are today. This seems a rather unusual position. It would in fact be very difficult to show that education as a profession has been as inert as is being suggested… *We are becoming more aware that educational institutions all around the world pay attention to the improvement of their teaching and learning practices.*

The point I am making is that it is not a good idea to start articles with flawed claims. It establishes a false foundation on which the author then often develops further misconceptions. For instance, the final part of the sentence reads … *with the innovative use of information and communications technologies (ICT).* Naidu, Cunnington and Jasen are suggesting that this new interest in teaching and learning has come from innovative use of technology. It could be conceivable, and most probable, that they believe that technology is the catalyst for improvements in teaching and learning. They have attempted to move us to a conclusion with a number of unsupported claims.

Firstly, to suggest that technology is a catalyst for educational improvements is a particularly problematic claim and one that I am sure would be difficult to substantiate. Secondly, the idea that education is improving is a particularly challenging thought. It is true that there are a considerable amount of organisations wholesaling a variety of delivery approaches, but to suppose that this difference or variety leads to improvement is rather naïve. Finally to assume that institutions all round the world are employing information and communication technologies in innovative ways is a misconception. Many articles make the mistake of assuming that the use of technology is innovative. The acceptance of this conception has resulted in the production of vast amounts of tedious technology based educational material. Technology does not necessarily equate to innovation.

If there is a growing interest in teaching and learning then it is more likely to have come from the influence of theory rather than technology. For instance Postmodernism would have to be an important area for consideration, as would the theoretical positions of cognitivism and socioculturalism, neither of which is mentioned by the authors.
Rationale, Aims & Goals

In the opening paragraph authors make the claim that “Although a great deal of work has gone on in the investigation of the effects of computer-based learning, there is a lack of reliable knowledge about what works, why and in what ways?” This is a rather bold claim and one that few readers would agree with. Research into computer-based learning has existed for many years. So prolific has it been that there are now many new journals devoted solely to this field. I am not suggesting that research in this area has been comprehensive; on the contrary there are many gaps and many unanswered questions. But there is really no basis for a claim like the one above.

They state that the goal of their investigation is to take us to a deeper level of understanding of how ICT is fundamentally influencing the nature of the teaching and learning processes. I found no discussion on this theme.

They go on to define that the aim of the project is to “tell the untold stories of practitioners and participants.” Firstly, I found no reference to participants. Secondly, can we define the material presented in the profiles as untold stories? They are short answers to questions. Untold stories suggest an open narrative form, of which these responses are not.

Purpose

The stories we are collecting and the profiles of practice that we are developing will comprise the data for the development of conceptual models of best practice. But this comment is not raised again. It would have been satisfying to see a discussion on how the authors were going to extract conceptual models of ‘best practice’ from their data. However, it is worth noting that the ease with which the comment is made fails to take into account the difficulties of moving from data to conceptual models of ‘best practice’, if it is even possible.

Context and Scope, Methodology and Action Research

The material presented in Content and Scope made little relevance to the investigation: a mixture of misused references jumbled together with no clear point. The methodology section represents a summary of Lincoln & Guba (1985) on naturalistic inquiry; a summary that bears little relevance to the actual investigation undertaken. Similarly, why have the authors included a section on action research? Much of the summary from Schon (1983) essentially undermines the simplicity of this particular investigation. There is no systematic observation and evaluation. No joint scrutiny of processes and outcomes, and no group-based action or individual problem-solving activity.

Profiles

Even from a quick review of the profiles it is clear that there is little that could be termed innovative, or reflective. There is also no obvious shift in educational approach as suggested by the authors in the opening section.

- Project 1: A simulation
- Project 2: A simulation modelling system
- Project 3: A tutoring system – focus on practice
- Project 4: Not clear, information based – but some interaction with students

These projects appear to follow traditional teaching models. The fact that they have been delivered via computer technology does not mean they are new or innovative. They also bear no relationship to the material presented in the opening section on Context & Scope….

These initiatives have led to the rise of new roles for teachers such as “facilitators of learning” as opposed to “deliverers of content” (de Verneil & Berge, 2000; Evensen & Hmelo, 2000; Salmon, 2000). They have also exposed students to new models and approaches to learning such as “computer supported collaborative learning” (Koschmann, 1996), and “computer supported problem based learning” (Bernard, Rojo de Rubalcava, & St-Pierre, 2000; Crook, 1994; Dillenbourg, 1999; Koschmann et al., 1996; O’Malley, 1995).
All of the projects focussed on the ‘delivery of content’. There is no mention of CSCL, or CSBL, or teachers taking on different roles. Are these profiles, or notes any different than one would get if you asked these teachers to respond to a standard face-to-face lecture type delivery?

You will recall, in the opening section, I quoted the authors intention to look beyond superficial data and examine closely how information and communications technology is fundamentally influencing the nature of the teaching and learning transactions. It would do so by *telling the untold stories of practitioners and participants*. Below is the reflecting – what I have learnt data. I will leave it up to you to draw your own conclusions as to whether or not or to what degree the authors have achieved their intentions.

**Reflecting – What you learnt**

1. In the end, it comes down to resources, money and priorities.
2. There is an incredible array of material out there about making learning experiences better for students. We need to be sharing it more, to enable staff to think about it. The technology will just come along, once you have got the pedagogy sorted out.
3. I’m a much better teacher. If the primary role of this course is to improve critical thinking skills, then yes I think I’m a better teacher. I’m using better methods, better tools, and getting better results. If you’re in a deep and challenging project, then you’ve really got to expect that it may not pan out the way you think it will. You’ve just got to be prepared to change your direction, re-conceive the project, and ask for more money.
4. My regret is that it has taken as long as it has to get this far.

**The authors closing remarks…**

The work that is described and discussed in this paper grew out of a growing call for evidence of the impacts of ICT in tertiary teaching and learning. While this is a question that has been asked many times, answers to it have not been conclusive. There is a lot of evidence to suggest that the use of ICT in tertiary teaching and learning has many advantages. There are also suggestions that these benefits do not justify the cost, time and effort that this kind of work entails. Many of these findings are, however, problematic as they are based on neither reliable nor valid research techniques. The work that is reported in this paper incorporates investigation techniques that depart from the commonly used approaches to the quantification of user perceptions with questionnaires and surveys of sorts.

It is never good practice to quote large portions of text, but in this case the closing section of the article epitomizes the entire approach of the authors. It should be clear, in this concluding section; how far removed the authors’ language and conceptions are from their actual data. I should mention findings, but findings do not appear to have been formed.

**My Conclusion**

Naidu, Cunnington and Jasen open their article with numerous claims that employ topical ideas and contemporary rhetoric, but the language has little to do with what they actually did. It would have been more truthful to state that the investigation represented a project to establish a database of responses from staff that had received project grants to employ technology in their teaching.

As a scholarly article it fails in a number of ways…

1. The use of grandiose claims about technology and education.
2. Unreasonable claims that are unsubstantiated.
3. Unsupported goals and aims statements.
4. Considerable amount of the article consists of undeveloped data (the profiles)
5. Adding material for substance rather than clarity.
6. No argument, no discussion, only reporting.

In closing, I would have to say that I found the article very superficial. There is no clear structure, or argument, or discussion or reflection on findings. I would define it as a project report. I am surprised that IFETS found any merit in this work.
References

