

THE MINI-CONFERENCE AS A RESEARCH TOOL: ENCOURAGING COLLEGIALITY AMONG ICT EDUCATORS

Francesca Collins, Julianne Lynch & Selby Markham

Computing Education Research Group
Monash University, Australia

Francesca.Collins@infotech.monash.edu.au

Juli.Lynch@infotech.monash.edu.au

Selby Markham@infotech.monash.edu.au

Abstract

This paper examines the development of the 'mini-conference'; a novel method for collecting qualitative data whilst promoting collegiality among participants. The mini-conference was developed for the purpose of obtaining the views of information and communication technology (ICT) educators from across Australia's universities as part of the ICT-Ed Project. The ICT-Ed Project is a DETYA funded investigation into innovation in the delivery of ICT education in Australian universities. The field of ICT education is diverse, encompassing a range of disciplines: both those traditionally classified as IT (e.g., information systems, computer system engineering and computer science) and newer disciplines which cross over a number of educational domains (e.g., business systems, web development and design, e-commerce).

In this paper, the stages in the development of the mini-conference will be outlined, including:

- factors driving the development of the program*
 - the considerations underlying the format*
 - the recruitment of participants into the project*
 - the perceptions of participants about the usefulness of the format*
- Preliminary findings regarding the usefulness of the mini-conference as a data collection method in the ICT education sector will be discussed.*

Keywords

qualitative research, collegiality, ICT education

Introduction

The *ICT-Ed Project* is a national government-funded study investigating innovation in the delivery of information and communication technology (ICT) education in Australia's universities. For participants in any research project, there is a tension between the potential costs and benefits of participation. This is especially pronounced where participants are under a great deal of time pressure and work within a competitive industry. In the present paper, the development and implementation of a method of data collection which attempts to balance these concerns – the *mini-conference* – is presented.

The mini-conference was devised as a tool for collecting qualitative data from ICT educators regarding:

- their ICT education initiatives,
- their perceptions of the factors affecting innovation in university ICT education, and
- their perceptions of the factors involved in the dissemination of ICT education innovations

The development of the mini-conference will be presented in three parts. First, special challenges that have arisen for ICT educators in the current Australian higher education climate will be briefly outlined. The development of the mini-conference will then be described in relation to the *ICT-Ed Project*. Finally, preliminary findings regarding the usefulness of the mini-conference as a data collection method in the ICT education sector will be discussed.

The Challenges of a Unified National System for ICT Educators

With the move from a binary system to a Unified National System of higher education, Australian university educators have found themselves working in a 'corporate' world (James, 2000; Smart, 1997) where competition for students, government funding and sponsorship from commercial organisations is fierce. In such an environment, teaching and learning innovations emerging from individual universities can be seen as 'products' that give a university 'the market edge' (Collins & Lynch, in press). Such an environment threatens collegiality in university educators because activities such as the discussion of 'products in development' with peers from other institutions may amount to colluding with the competition (McNaught, Phillips, Rossiter & Winn, 1999). It appears that where once collegiality was encouraged, it is now restricted – if not in intention, at least in practice.

The problem of restricted collegiality is of particular relevance to ICT educators. The speed of technological change means that ICT educators are continually revising the content and means of delivering their subject materials. Rapid changes or advances in technology give ICT educators little time to obtain peer feedback on educational initiatives before they must be implemented. For example, if the ICT industry forecasts a need for graduate proficiency in a new programming language or application in the next five years, ICT educators may be required to incorporate the new technology into their already established curricula in time to meet this industry need.

So, for the ICT educator, there is a pressing need for the timely dissemination of educational innovations; however, dissemination activities are hindered, whether explicitly or implicitly, by inter-university competition. A number of authors have called for a return to the collegial practices of the pre-1987 higher education system (e.g. Harvey, 1998; McNaught, et al., 1999) and there is now explicit government recognition of the importance of disseminating innovative teaching and learning practices. This recognition is manifest in the establishment in early 2000 of the Australian Universities Teaching Committee (AUTC).

Among the AUTC's terms of reference (AUTC, 2000, online) are:

to encourage dissemination and adoption of [effective methods of enhancing learning] across the Australian university sector; [to] promote collaboration and exchange of information in teaching and learning both nationally and internationally, and [to] encourage and foster innovation in higher education teaching and learning.

Shortly after its inception, the AUTC commissioned a small number of projects investigating teaching and learning innovations in the disciplines of ICT, nursing and law. The investigation of ICT education - the *ICT-Ed Project* (online) - is being undertaken by the Computing Education Research Group at Monash University and it was in response to the project brief and the prevailing competitive environment of the Australian higher education sector, that the concept of the mini-conference emerged.

Project Brief

Information and communication technology education is a diverse field encompassing a range of disciplines: both those traditionally classified as IT (e.g. information systems, software engineering and computer science) and newer disciplines which cross over a number of educational domains (e.g. business systems, web development and design, e-commerce).

The AUTC project brief called for the identification of the extent to which innovations in ICT teaching and curriculum development have been initiated in response to the needs of students and employers. Associated goals included the identification of factors driving and inhibiting innovation

in ICT education and issues related to the dissemination of innovations among ICT educators. The project responded to this brief by conducting investigations of the perceptions of ICT university educators (Phase 1), employees (Phase 2) and graduates (Phase 3).

The mini-conference program was the means by which the perceptions of ICT educators were elicited in Phase 1 of the project. Preliminary findings of Phase 1 of the *ICT-Ed Project* have been reported elsewhere (Collins & Lynch, in-press; Lynch & Collins, in-press a; Lynch & Collins, in-press b). A final report on the project comprising research outcomes and policy recommendations will be presented to the AUTC in November 2001.

The Mini-conference

Rationale

In light of the literature regarding loss of collegiality in the post-1987 Australian higher education sector, it was of paramount importance to the researchers that the project be conducted within a collegial atmosphere (Bessant, 1996; Chipman, 2000; Gilbert, 2000). It was envisaged that input would be drawn from university ICT educators from across the country and it was hoped that by maximising the cooperative input from the ICT departments and faculties across Australia, the final project report would be seen as belonging to the national academic area.

The main goal of Phase 1 of the *ICT-Ed Project* was to identify teaching and learning innovations in Australian ICT education and ICT educators' perceptions of the factors affecting these innovations and their dissemination. Based upon this information, the researchers are required to make recommendations to AUTC regarding the dissemination and uptake of successful innovations across Australia's universities. The researchers believed that any recommendations contained in the project's final report must reflect the self-reported concerns of the practitioners themselves. To this end, it was decided to obtain this information 'straight from the horse's mouth' by way of day-long forums in which university ICT educators could report on innovations in their department (school, faculty, university) and register their opinions regarding the factors affecting educational innovations and their dissemination.

Description of the Mini-conference

Briefly stated, the mini-conference program consisted of a series of day-long workshops comprising brainstorms, discussion sessions and brief, informal presentations given by participants. In order to capture the perceptions of ICT educators across the country, mini-conferences were held in all Australian capital cities with the exception of Darwin where a mini-conference was conducted via video-conferencing technology.

Each mini-conference was of six hours duration (3 hours for the video-conference with Darwin participants) during which participants provided informed consent to participate in the project and were asked to take part in discussions on issues relating to ICT education and to share information on their own teaching and learning initiatives. The number of participants at each mini-conference ranged from 4 to 14. These small numbers ensured that participants would have ample opportunity to express their opinions and time to present their initiatives. Each mini-conference was facilitated by two researchers (the first two authors of the present paper) who did not contribute to the content of the discussions but did record and seek clarification of issues raised.

The proceedings of the mini-conferences were guided by workbooks provided by the researchers on the day of the mini-conference, in which participants recorded their responses to stimulus items, provided written descriptions of their initiatives and made note of the ideas emerging from discussion sessions. The stimulus items, which mapped directly to the research questions posed in the project brief, were as follows:

1. *What are the factors driving educational innovation in ICT education?*
2. *What are the factors inhibiting educational innovation in ICT education?*
3. *Please describe a teaching and learning initiative in which you or your department are currently involved. (Included sub-prompts.)*
4. *Deciding whether your teaching initiative is effective. (Included sub-prompts.)*
5. *What issues would be involved in disseminating your initiative to other ICT educators?*

For stimulus items 1, 2 and 5, participants were given time to consider and record their responses before presenting their responses to the group in open discussion. Individual responses and ideas emerging from the brainstorming process were recorded on a white board and later transcribed for qualitative analysis. For items 3 and 4, participants were again given time to record their responses before presenting them individually to small groups of 4-7 participants. Each participant was given time to describe their initiative including its background, goals, strengths, limitations and plans for evaluation. Individual presentations were followed by short discussion sessions.

Participants were informed of the structure of the mini-conference before attending but were not informed of the actual topics to be discussed. Participants were also advised that no formal preparation was required prior to attending but that they should come willing to informally discuss a teaching or learning initiative being undertaken in their department, school or faculty.

The workbooks acted as both a data source for this phase of the project and as a resource for the participants in terms of networking and sharing ideas with one another. To ensure that all of the ideas emerging from the discussion were captured, the sessions were audio- and video-taped. Video recordings were made to aid in the transcription and analysis of the audio recordings and did not constitute data, *per se*. The contents of all workbooks and audio-recordings were subjected to coding and qualitative analysis using *NUD*IST VIVO* (Qualitative Solutions & Research, 1999).

In the period immediately following each mini-conference, the researchers produced summaries of the educational initiatives presented by each participant. These summaries were forwarded to the participant concerned to confirm the accuracy of the data collected. On receiving approval of the summaries from participants, the summaries were posted on the project website.

Recruitment of Participants

There was some risk in choosing to collect data in the manner described above. The heavy workload of the average Australian academic and the governmental and institutional pressures discouraging staff involvement in collegial activities are well documented (Lynch & Collins, in press). This posed the research problem of how to encourage potential participants to take a day out of their busy schedules and involve themselves in the project in a spirit of institutionally-supported collegiality. To ensure that potential participants and their departmental heads were aware of the collaborative nature of the program, a 'letter of introduction' was mailed to all heads of all Australian university academic units that offer subjects in ICT. In addition to outlining the mini-conference program and the larger *ICT-Ed Project*, the letter asked recipients to notify the researchers of the names of innovative teaching staff within their academic units. This approach proved fruitful; by casting a wide net at the faculty and departmental levels, a database of over 200 ICT educators interested in teaching and learning innovation was developed. Invitations to participate in the mini-conference program were sent to all individuals identified by the above process with the request that invitees circulate the invitation to colleagues they thought may be interested contributing to the project.

The researchers were also concerned that involvement in the project be seen by potential participants as worth their while; for many, participation would involve hours of travel and the re-arranging of commitments. To overcome this source of resistance, it was pointed out to potential participants that attendance at a mini-conference would provide them with an opportunity to see what their peers are doing in terms of educational innovation, to obtain feedback on their own initiatives and to be recognised for their contribution to a major report on the state of ICT education in Australia.

Of Australia's 39 universities, 29 were represented in the mini-conference program. In total, there were 82 participants including teachers, educational designers and heads of units, representing 51 administrative units. Two of the 82 participants were from universities not funded by the Australian government (Bond and Notre Dame universities). Of the remaining 80 participants, 50 were from institutions which, prior to 1987, were colleges of advanced education or institutes of technology where the focus was on teaching rather than research. Of the 30 participants that were from institutions that were universities prior to 1987, at least 10 worked on campuses that were formerly CAE or institute of technology campuses.

Preliminary Findings on the Usefulness of the Mini-conference

From a research point of view, the mini-conference program has proven a profitable method for the collection of qualitative data from among university ICT educators. The researchers are confident that the breadth and depth of ICT education innovation in Australian universities has been captured. Likewise, saturation was reached in regard to participants' perceptions of the factors affecting educational innovation and dissemination.

A specific goal of the researchers was to conduct the *ICT-Ed Project* within a collegial atmosphere in which participants could obtain peer feedback on their own educational initiatives, hear about initiatives under way in other universities and feel as though they are a part of the greater ICT education community. The behaviour of participants in the program suggests that this goal was achieved. All participants presented at least one initiative (and sometimes as many as three) in which they or their department are involved. While the issue of intellectual property and the constraints of developing innovations in a competitive environment were at the forefront of many participants' minds, they still felt free to discuss one another's initiatives in a honest and constructive manner. The researchers observed a good deal of networking among participants. This was manifest in business-card and email address swapping, the issuing of 'guest' passwords to the sites at which individual participants are developing their initiatives and invitations for inter-institutional collaboration on ICT education projects.

The feedback of individual participants provides additional support for the usefulness of the mini-conference program in encouraging collegiality. Informal feedback from participants included expressions of gratitude that the opportunity was provided to engage in collegial discussions and to find out what colleagues are 'up to'. Furthermore, many participants described feeling optimistic about government recognition of the importance of collegiality and took away from the mini-conferences new ideas about new educational techniques and methods for promoting them in their own institutions.

The online publication of summaries of all initiatives presented during the mini-conference program means that the ideas and activities resulting from the program do not 'sit on a shelf to gather dust'. The ideas remain accessible and authors have made themselves available to discuss their activities with interested colleagues.

Limitations

A limitation of the use of the mini-conference in the *ICT-Ed Project* is that, because of its public nature, it is unclear how candid participants were in presenting their ideas and initiatives. While participant behaviour suggests that there was little 'holding back', this cannot be confirmed without further, anonymous, feedback. However, in terms of the research question, the data collection objectives of the mini-conference program were satisfied.

The make up of the participant cohort also needs to be considered in an evaluation of the mini-conference program. As noted in the participants section, a large proportion of participants were from universities that, prior to 1987, were colleges of advanced education or institutes of technology. These participants had commenced their academic careers in institutions where the focus was on teaching rather than research.

The high representation of educators from former CAEs may be due to there being little opportunity in a research-focused Unified National System for educators who trained as teachers, to discuss their work. On the other hand, the under-representation of educators from older universities may be a reflection of these universities' level of commitment to the development of good teaching practices and higher education pedagogical theory. As Bessant notes, "it will take longer for the older universities to embrace modern teaching methods than for former CAEs to take on research" (1996). It is unfortunate that data concerning those individuals who declined to participate is not available. However, it may be assumed, based upon the comments of those who did participate, that in addition to factors at the institution level, time pressures prevented some educators from attending.

Conclusion

The mini-conference, as a method of collecting qualitative data from among university educators, was profitably utilised in the *ICT-Ed Project*. Despite institutional and time pressures, the mini-conference format attracted participants from a wide range of universities and disciplines within the ICT education community. In terms of promoting collegiality in a competitive, corporatised environment, the mini-conference program was most successful. It is encouraging to see that the race for the 'market edge' has not extinguished the university ICT educator's desire to pursue academic freedom.

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Acknowledgements

The research reported here was funded by the Department of Education, Training and Youth Affairs (DETYA), through the Australian University Teaching Committee (AUTC). Support was also given by the School of Computer Science and Software Engineering, Monash University. The reference group for this project includes Angela Carbone, Assoc Prof Malcolm Eley, Ainslie Ellis, Dianne Hagan, Assoc Prof John Hurst, Dr Selby Markham, Judy Sheard, Dr Juhani Tuovinen, and Allison Brown. The researchers are Dr Julianne Lynch and Francesca Collins. Data management support was provided by Pauline Bond. More information and contact details can be found at <http://cerg.infotech.monash.edu.au/icted/>.

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