

GETTING IT TOGETHER: A COOPERATIVE MODEL FOR STAFF DEVELOPMENT

¹Gunn, C., ²Lefoe, G., ³Graham, A., ⁴Left, P. and ⁵Smith, C.

¹Education Technologies Adviser, Centre for Professional Development,
University of Auckland

Email: ca.gunn@auckland.ac.nz

²Lecturer, CEDIR, University of Wollongong

³Vocational Training Council, Hong Kong:

⁴Director, VERSO Ltd, New Zealand

⁵Director, *usermatics ltd*, Edinburgh, Scotland

Abstract

As administrators pursue the competitive edge, staff developers take a different approach to innovation by seeking cooperative solutions to teaching and learning problems. The challenge is to provide Academic Development and IT expertise that supports organizations' ability to respond to demand for technology supported, flexible learning across cultural boundaries.

Keywords

Staff development, collaboration, academic exchange, teaching and learning model, planning, integration, organizational change, strategic goals

Introduction: a context for collaboration

A recent Academic Exchange program sponsored by the Hong Kong Institute of Vocational Education (IVE), brought together a team of international experts to:

- define a generic model for enhancing teaching and learning through technology
- analyze staff and organizational development needs
- develop a framework and programs to meet these needs

The team brought together experience of different sectors of education and training, i.e. university, school, vocational education and commercial training. The exchange program focussed on cooperation, within and between institutions, units and individuals to identify solutions with a local flavour, which drew on the experience of all involved. Experience has shown that technology-driven initiatives attempted in some countries invariably result in inefficient use of time and resources. Whilst avoiding the 'reinventing the wheel' scenario it is still important to respond to the diverse needs of institutions and to avoid imposed solutions. The underlying philosophy of the program was that educational considerations must drive developments in technology if the necessary high level of investment is to be efficiently and effectively utilized. The ARIA (Activities, Resources, Interactions and Assessments), Model of teaching and learning was used as a basis for analysis of courses as they are currently taught. Each course element was examined in respect of the potential for improvement through the introduction of different types of technology. This helped staff to think more creatively about ways in which technology can be used beyond simple enhancement of classroom presentations. Action plans were drawn up and group discussion focused on identification of the associated costs, benefits, strategies and operational plans. Resource and development

implications were fed back to institutional management. The outcome of the exchange is a framework for incorporating technology in teaching and learning which can be adapted to meet the diverse needs of individuals in different institutions and countries.

The purpose of the exchange

The current situation within IVE campuses is typical of the transition period for the tertiary sector in many countries. There is an impetus for rapid change but some staff have only limited understanding, and even a degree of apprehension about using technology in teaching. Management conceptions are similarly variable. During this transition phase, there is a danger of moving too fast, of letting technology drive developments or of setting unrealistic goals. While some excellent projects may be in the conception stage or under development, these tend to result from motivated individuals working in isolation rather than departmental initiatives that will permeate the culture of the institution. Best practice in education technology has proved to be context specific, so there are few general guidelines that apply across all disciplines, (Laurillard 1993, p 229). The requisite skills and knowledge take time to develop, and evolving principles must be embedded into revised policies and procedures. The key lesson to be learned from local and overseas experience is that quantitative, efficiency based goals are best avoided in favour of educational quality and technology related aspirations of teaching staff, even if this appears, superficially, to be a more expensive option, (Mok 1999). Such objectives require skilful guidance towards achievement of broadly stated strategic goals.

The strategic goal in this case is that IVE staff will make increasing use of technology in their teaching. Considerable improvements are being made to the infrastructure that supports technology use across IVE campuses and it is recognized that staff development and support is required to equip teachers with the competence to introduce technology into their courses in an educationally sound way. IVE management recognize the benefits of international exchange among academics by making a small fund available to each of its nine campuses for visitors in a discipline of their choice. In 1998, three campus principals pooled finances from this fund and identified education technology as that discipline because they were aware that, while some staff were highly skilled in certain areas, others were not even at the novice stage. The broadly stated aims of the exchange were to increase individuals' understanding of the issues and opportunities and to give a general boost to the profile of IT across the sector.

Getting IT together: planning the exchange

The challenge then was to organize a high impact program on the available terms. The conventional option of inviting people one at a time was not attractive because the visitors' honorarium only covered airfares and subsistence. Other incentives than money had to be offered, and the idea of inviting four people who are not usually in the position of being able to work together was proposed. This would offer the opportunity of exchanging ideas within the group, (staff development of the staff developers) as well as teaching others and finding out what was happening in another part of the world. Looked at in this way, it was an academic exchange involving four countries rather than two.

Finding four international experts interested in working together on these terms was not as difficult as anticipated. The option was considered attractive by the first person approached who then used existing professional networks to convince three other experts – another from New Zealand, one from Australia and one from Scotland – to participate because of the opportunities it offered for international collaboration. The same technologies that were to be promoted as educational tools during the exchange were then used to plan remotely and collaboratively, and later to present a two-day retreat and three separate one-day workshops.

Making IT work: planning events

The planned scale of developments within the Hong Kong Vocational Training Sector could not be achieved through the individual, ‘early adopter’ approach. The synergies operating within the visiting team were made explicit as a model for evolving academic practice of cross-disciplinary teams working on development and integration of teaching innovations. The broad aims of the program were defined as:

- promotion of widespread commitment to and ownership of technology related development and integration processes
- raising awareness of the implications for administrative and technical departments and the need to form cross disciplinary teams
- highlighting the importance of communication between management, teaching and support staff so that conditions are conducive to, and supportive of, innovation
- management of realistic expectations and goals at all organizational levels.

The underlying intention was to adopt a generic approach which was fully applicable to the local culture and context. With limited prior experience of working in Hong Kong institutions, it was a challenge to the visiting experts to prepare a program based on a common conceptual framework, (Boal 1998). This was achieved through consultation with the local organizers and the pooling of cross-cultural experience among the team. The fact that this dialogue was possible during the planning stage was stressed as an example of how far collaborative processes can be supported by technology.

A further challenge facing academic development in the field of technology, regardless of location, is management of expectations. Experience has shown that management conceptions of the impact of investments in technology can be quite unrestrained by reality, (Recker & Gunn, 1999, Phipps & Merisotis 1999, Davis and Crowther 1995), and that this can lead to problems at operational level. Further complications result when teachers are unable to make realistic predictions about development cycles, implementation issues and student reactions to the introduction of technology. An introductory session to the exchange program confirmed the relevance of this assumption as it became clear there was no common understanding within the sector of what staff were expected to do with technology. For some, it meant using presentation software instead of overhead slides while others were thinking of intelligent systems and AI. Addressing the range of expectations at different levels within organizations **and** in an unfamiliar culture was a formidable challenge.

Conducting IT: the exchange program

In all, 90 staff participated in the program. Apart from one or two exceptions, all were Hong Kong Chinese and a 'mixed audience' in several respects. IT experience varied from near beginners to competent users, some were newly appointed lecturers and others were senior staff members. Their ability to communicate in English about IT also varied considerably. There were further constraints in that the teaching environments were not purpose-built for educational development workshops, and computing facilities were limited. The program followed constructivist principles, (Jonassen 1998), and consisted of a two-day retreat on 'neutral ground', followed by three day long workshops in different institutions. Although the situation where a range of senior and junior staff come together in a workshop setting was culturally unfamiliar, the neutral setting of the two day event and the fact that many were novices in relation to technology rendered the concept more acceptable. The politics of culturally defined behaviour within groups was considered when deciding which activities should be lead by the visitors and which could be done in smaller groups. The two and one day programs were designed to achieve the following specific objectives.

Aims of the two day retreat:

1. to provide staff from the three campuses with a global perspective of the various ways that technology is being used by teachers and learners in different educational settings
2. to motivate staff to use technology effectively in the teaching and learning process, and to assist them to gain confidence in doing so
3. to help staff make best use of improved IT facilities within IVE and to judge the quality of educational software packages
4. to assist staff to form realistic IT strategies for their own work contexts

Range of topics

- various ways of using IT in teaching and learning
- contemporary developments and products
- learning theories and teaching practice
- evaluation
- opportunities and constraints
- computer-assisted teaching and authoring tools
- computer-assisted learning and assessment
- computer networks
- on-line presentation
- trouble shooting of simple hardware and software problems
- look at where the IVE is now and what its strategic goals are

Aims of the one day workshops:

- to work through a technology implementation plan from conception to implementation
- to plan the acquisition or production of technology based teaching resources
- to consider evaluation, student support and assessment of technology based teaching
- to identify professional development and support needs for teachers using technology
- to interpret institutional strategic objectives related to technological development through course development and delivery

The ARIA model

The underlying assumption that educational issues should drive developments in technology was stressed through focus on a model of teaching and learning during the events. The ARIA Model (Figure 1) was refined as a collaborative exercise, and is proposed as a generic model for analyzing and enhancing existing courses or developing new ones with integrated, supporting technologies. What may appear to be a simple, preliminary exercise of identifying the critical objectives and aspects of a course can prove surprisingly difficult as many staff developers have discovered. However, deconstructing courses in this way can be a worthwhile activity even where there are no plans for technology related enhancements. Going through the different aspects of the model in a workshop setting created opportunities for open discussion of the relative merits of different types of activities, resources, interactions and assessment. In the case of activities, figure 2 was presented, not as a definitive statement, but rather to provoke discussion of the effectiveness of commonly used learning activities.

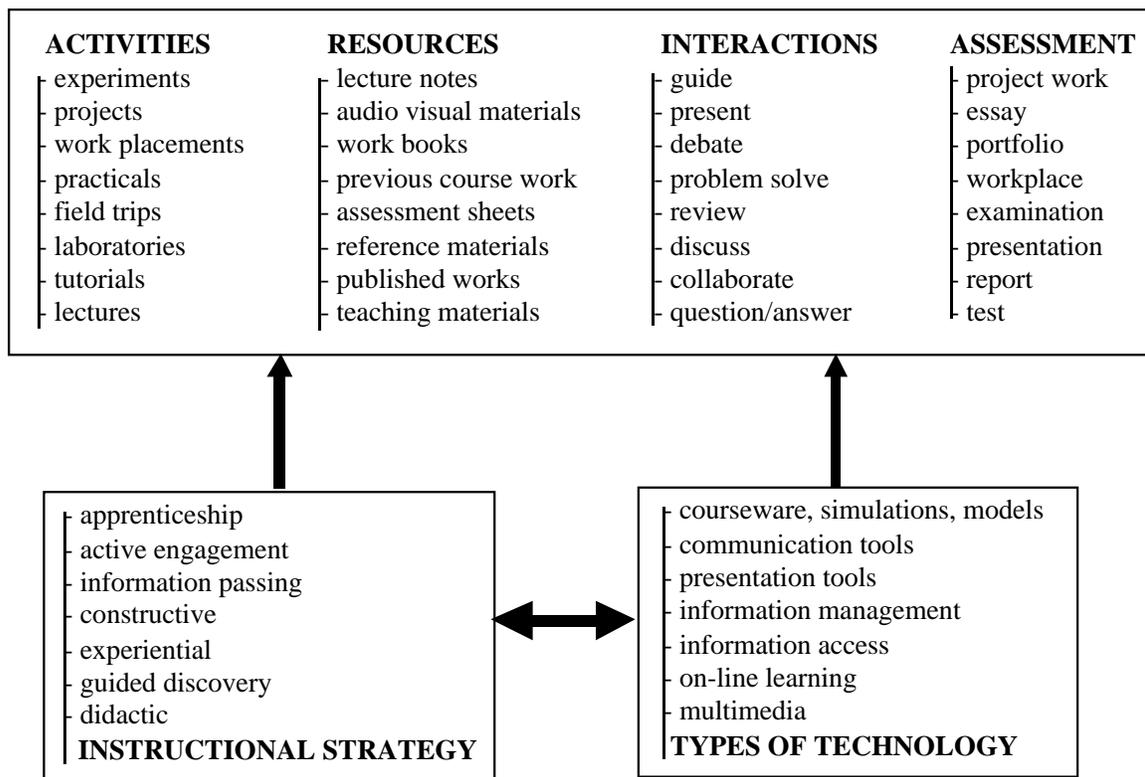


Figure 1: The ARIA Model of Teaching and Learning

Further discussion centred on instructional strategies, some of which are believed to be more prominent in Asian societies than in their Western counterparts. The tension created by cultural beliefs about the roles of teachers and learners in some societies has significant implications for the ways in which teachers will conceptualize the use of technology in courses. However, pre-conceptions about instructional styles were put on hold as supporting evidence comes from secondary sources and with no guarantee of relevance to the current situation. While the teacher centred didactic model was found to be common as these sources suggest, it was far from ubiquitous. Some teachers were familiar with forms of technology that promote learner autonomy and constructivist principles, a significant proportion had experienced different styles while studying abroad and teaching and learning theory in Hong Kong is evolving as it is elsewhere. Casual observation suggested that post-secondary students are comfortable with a more learner centred style as long as adequate support is available.

Finally, a range of technology options was described and demonstrated within the framework of the ARIA model. Groups of participants were asked to evaluate examples of different types and define possible areas of application in the context of their own institutions and courses.

Effectiveness of Instructional Strategies, (Serim & Koch 1996)

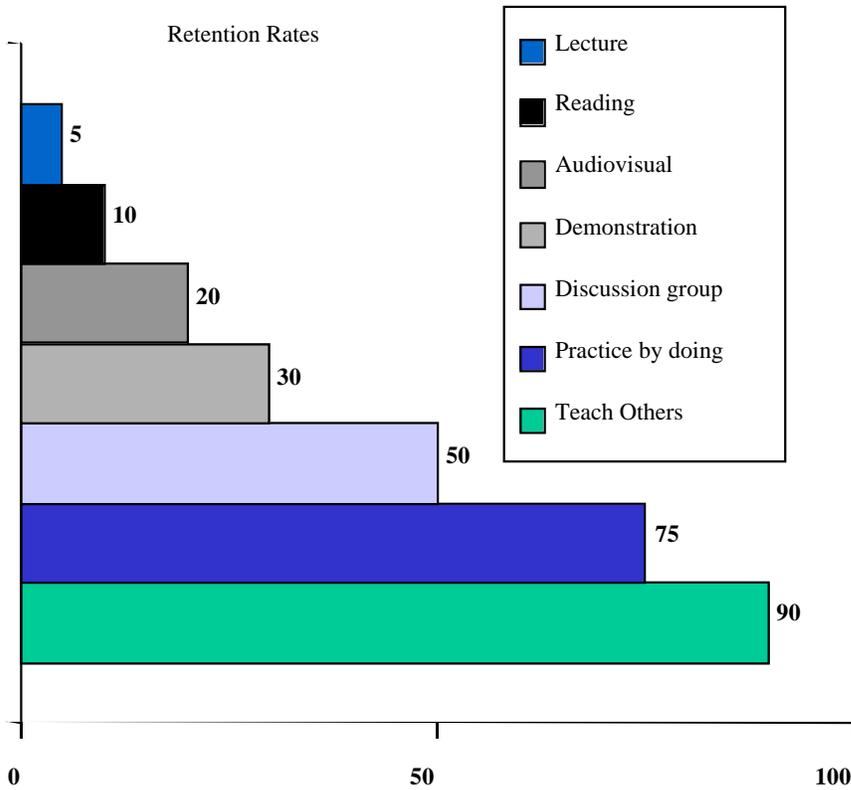


Figure 2: Effectiveness of learning activities

Reality check

At this stage of an introductory program it would be easy for less experienced staff to formulate development plans and aspirations that do not include adequate consideration of the organizational, resourcing, training and integration issues involved. Discussion within groups followed by a plenary session provided an effective means of bringing out these issues as they related to the local context as well as what experience elsewhere has revealed. In summarizing this part of the program, a list of issues for feedback to management was generated without any risk of individuals being identified or associated with comments that may have been considered unreasonably critical at the receiving end. This proved a useful vehicle in a situation where there appeared to be no obvious channels through which such issues could be raised, and where management were not necessarily familiar with all the implications either. It also provided a needs analysis for the local organizers of the exchange visit, and allowed them to showcase some of the services then being established to support technology related developments, and for staff to give feedback on what their own projects would require.

Wrapping IT up

The current situation in Hong Kong was considered substantially to reflect the stages of development in the tertiary sectors in the UK, Australia and New Zealand. The level of understanding of different applications of educational technology ranged from very basic to extensive. Some staff had in depth technical knowledge but less understanding of how to apply this to enhancement of education and training. The quality and creativity of some plans generated during the workshops was impressive. However, the overall level of understanding of the potential and operational realities of teaching with technology was limited and knowledge of the available tools and methods for doing so was not widespread. Further support in the areas of purchasing, resource development, skills training and awareness raising were implied.

The sector-wide strategic plan put in place to guide and support progress, and commitment of significant funds for its achievement was a clear advantage. Strategic objectives require specific targets to be met and appropriate policies, professional development and support systems are necessary to make these targets achievable. The invitation of overseas experts to assist in analyzing the situation and make recommendations reflecting the staff views on how current aspirations, obstacles and opportunities can be translated into policies and action plans further demonstrates the commitment to strategic goals of supporting efficient and effective progress in all areas.

Recommendations

The following list of actions was recommended to provide further support for achievement of strategic objectives and to create opportunities for staff to progress with various forms of technology supported teaching. The recommendations are detailed here because it is proposed they, like the ARIA model for analysis and planning, would apply equally well across many contexts.

Professional development

Establish a program of professional development that facilitates exchange of experience and models effective educational uses of technology. Current skill levels, conceptions of educational applications of technology and knowledge of acquisition and development options are limited. A comprehensive program to address these issues would:

1. establish networks for discussion and publicity, to share experience and disseminate good practice. If these are facilitated through electronic sources such as discussion lists, computer conferencing and the WWW, incidental learning of appropriate skills can occur with less experienced users.
2. create opportunities and incentives for staff to attend workshops, seminars and demonstrations of various educational technology options
3. feature a series of presentations from local pioneers to cascade experience and best practice to other staff.

Resource management: hardware and software

Provide access to networked computers as a basic facility and train staff and students to be proficient users of standard configuration hardware and software. Access is perceived to be limited in some areas and the use of technology as more than a basic presentation technique demands attention to these issues. A growth strategy would allow for an exponential increase in demand for hardware and software. One option is to promote wider use of existing facilities but acquisition of more computers and software programs is also required. Suggestions include:

- staff and students could be provided with dial up access to campus network facilities
- access to computers, email and internet connections should be provided as a basic facility and be used as a matter of necessity for staff notices, communication among peers and with management
- computer lab facilities remain open for longer hours with appropriate security systems in place
- the computer 'driving licence' concept could be adopted so staff and students become proficient users of standard configuration hardware and software applications

The real risk of not following these recommendations is that technology use will increase as strategy directs, but will add little value to quality of education or the computer literacy levels and so give a poor return on investment.

Resource management: time and money

Development or acquisition of technology based resources and re-conceptualization of courses and teaching requires significant commitment of staff time and other resources. Workloads were already perceived to be at full capacity requiring the re-allocation of time so staff can commit to technology development projects. One way of doing this is to provide contestable funding for:

- relief from teaching duties
- purchase of hardware software
- hire of design, development and programming skills and support

A clear advantage of such an arrangement is that all projects can be channelled through a centralized review process so quality is assured and repetition avoided. Collaboration across departments and institutions can be encouraged by preferential treatment of joint applications. Resources developed can then be made available for re-use or re-purposing in related areas, and best practice can be disseminated.

Policies and incentives

A review of relevant policies is required to ensure that teaching innovation is actively encouraged, facilitated and rewarded. Establishment of technology based teaching as a strategic goal assumes that incentives and rewards are in place for those who choose to pursue developments in this area. Institutional policies should also reflect the need

to change teaching and assessment practice to reflect developments. Relevant policies include:

- promotion
- assessment
- teaching and learning
- staff development

Support systems

Newly established central support services need to be marketed. Although some excellent technical and educational support systems were already available, awareness and availability of these was not widespread. At the time of the exchange program these services were undergoing significant restructuring and development. It is therefore reasonable to expect that it will take time to:

- establish the full extent of services
- create realistic expectations about what can be achieved
- develop the staff skills base and portfolios
- communicate the availability of services
- develop strategies to manage rapidly increasing demand

Conclusion

The cooperation of staff developers from different backgrounds in planning and presenting this exchange program proved a valuable experience all round. From the novice participant perspective, the fact that the program did not involve a series of high tech events reflected their current work situations and made development plans seem more achievable. Competent users had the opportunity to consult with international experts and to learn more about developments at their own level of experience. Specific benefits include:

- a model for the type of cross disciplinary cooperation required for the effective and efficient integration of technology in teaching and learning in contemporary institutions
- confirmation that a generic model can be applied across cultural, national and education sector boundaries
- further evidence that an institution-wide approach to the integration of technology is the best way to make the biggest difference

The degree of long-term success achieved by the exchange program is yet to be formally measured. To some extent, it is dependent on removal of resource limitations, which mean it has not yet been possible to act on all the recommendations. Although most evidence remains anecdotal at this stage, participant evaluation of the program gave positive and constructive feedback, and the local organizers also reported positive outcomes suggesting the approach was largely successful in achieving the stated objectives. In the age of globalisation and flexible learning, organizational management and staff development have to cross the cultural divide as effectively as the courses they seek to deliver. The IVE has taken an important step towards achieving this objective.

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