Professional Development for Effective Learning and Teaching in Far North Queensland

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INTRODUCTION
The use of information technology in society has increased rapidly in recent years and schools are investigating ways in which the new technologies can be utilised for classroom learning and teaching. Constraints which are acting to slow this process include the supply of suitable hardware and software as well as the inserviceing of teachers. While the supply and upgrading of hardware in Queensland is being partially overcome by government schemes to support purchases for primary and secondary schools, the upgrading of teachers' knowledge and skills in the use of information technology has lagged behind. This has been due in part to the withdrawal of teacher-release schemes by the central employing authority and the devolution of responsibility for inservice training to schools. The result appears to be a drop of interest in inservice programs and a slower than hoped for uptake in the use of information technology to enhance classroom learning and teaching.

This paper describes an ongoing DEET-funded professional-development project aimed at using information technology to enhance effective learning and teaching at all levels in schools in north, far-north and north-west Queensland.

RATIONALE
With the above constraints to inservice professional development in mind, project was designed with the following objectives:

• to involve primary and secondary teachers from state and catholic schools in North Queensland in the project early in term one 1995;
• to provide participating teachers with background readings relating to the use of information technology in the classroom for discussion at seminars;
• to conduct three weekend seminars, one each at Mt Isa, Townsville and Cairns, towards the end of term one, 1995;
• to implement information technology plans in schools in terms two and three;
• to monitor information technology plans as they are implemented;
• to run two symposia in term four 1995, one each at Townsville and Cairns, at which teachers will report on the implementation of the IT plans;
• to produce a booklet of proceedings from the symposia for distribution to schools.

The rationale for these objectives was based on the following assumptions:

• funding teacher travel and accommodation to weekend seminars and a symposium would allow teachers to make decisions on participation independently of funding priorities at the school;
• holding out-of-school activities in phase one and three of the project during weekends would obviate the need for teacher release;
• making provision for teachers to use these activities to obtain points credit in a Bachelor of Education (Professional Development) and Master of Education program offered by the university would be an added incentive;
• using the teachers’ own classroom environment in phase two of the project within a framework set by the phase one seminars would make the activity more relevant to their particular situation;
• the symposia in phase three would open the activity to a wider group of teachers.

The major partners in the project are the School of Education, James Cook University of North Queensland and the North Queensland Professional Development Consultative Group representing the Northern, Peninsula and North-West regions of the Department of Education Queensland, together with the two northern Catholic Education Offices. This group is co-operating with the implementation through approval to work in schools and through using their systems for advertising, promotion and the use of school-based professional
development funding. As well, several professional associations have agreed to support the project in phase three in relation to the organisation and delivery of the two symposia.

In summary, this professional development activity is attempting to improve educational outcomes for primary and secondary school students by enhancing the teaching competencies of teachers in implementing information technology in a number of learning areas in their schools, as well as encouraging teacher organisations to further promote professional development of teachers through the conduct of specific workshops and conferences focussing on information technology in school contexts. Also, partnerships with the Queensland Education Department Regional Offices and the Catholic Education Offices in Northern, Peninsula, and North-West Queensland educational regions are expected to be strengthened as a result.

IMPLEMENTATION
Teachers from primary and secondary state and catholic schools were invited to participate in the project early in term one 1995. Teachers were attracted from a wide range of educational settings from isolated schools with close to 100 percent aboriginal enrolment through to middle class metropolitan schools. The geographical spread of participating schools is also very wide, from Torres Strait in the north, to Doomagee and Mt Isa in the west and to the Whitsunday region south of Townsville. Readings, with discussion questions, were sent to participating teachers in advance of seminars which took place at the end of term one. At the weekend seminars, delivered towards the end of term one, participating teachers discussed readings, considered ways in which information technology may be most effectively used in their teaching environment, modelled and saw models of IT use presented at the seminar, evaluated software relevant to their teaching areas, gained experience on internet use, completed a computer-opinion survey and an innovations questionnaire and developed an information technology plan for implementation in their school.

As well, advertisement for project officers was undertaken and three project officers appointed to work over terms two and three to cover the three regions. Project officers also participated in the seminars, and will attend the symposia in term three.

Participating teachers are currently implementing their IT plans in schools, in some cases with other teachers, and with input from the project officer for that school. Participating teachers are expected to keep a log of progress and discuss this with the project officer from time to time. Project officers consult with the project manager in order that the project manager is informed of progress within each school. Participating teachers will be asked to complete another computer-opinion survey and stages-of-concern questionnaire late in term three. A research assistant is involved in obtaining background readings, as well as the compilation, collection and analysis of the survey and questionnaire material which will be used as part of the evaluation of the project.

Two symposia, one in Cairns and one in Townsville will be organised by the professional associations including the Townsville chapter of the Queensland Society for Information Technology in Schools (QSITE) in consultation with the project manager and educational authorities in term four. The symposia will be advertised throughout the three educational regions, with advertising material including an outline of papers to be presented. Papers will be generated, in the main, from the activities of the participating teachers in schools. However, other teachers will be invited to present. In this manner, the project will provide a core of teacher experiences for the symposia. The symposia will be open to all interested teachers to attend and it is planned that professional associations in the northern educational regions will be actively involved in the promotion, as well as state associations through state journals and newsletters. Funding will be provided to participating teachers involved in the project. It is expected that other teachers will obtain funding through their schools. Proceedings of the symposia will be published and distributed to participating schools.

EVALUATION
Evaluation of the project will take a number of forms in order to determine to what extent the objectives of the project have been achieved. Quantitative measures will include the use of a Computer Opinion Survey (Maurer & Simonson, 1984) which will measure changes in computer attitudes of participating teachers over the period of the project, and the use of a stages-of-concern questionnaire (R&D Centre for Teacher Education, 1974).

Evaluation of phase one will be by use of a protocol developed by the School of Education in order to measure the effectiveness of the introductory aspect of the project. The implementation phase will be evaluated by means of interviews with project officers and selected participating teachers at the end of term three to judge the effectiveness of the professional-development model. Evaluation of the symposia in phase three will be by an evaluation sheet provided to the participants at the final session of each symposium held in term four.

Performance to date has been measured by the successful appointment of project officers and the number of participating teachers attending the term one seminars and to a lesser extent by the number of additional teachers agreeing to present at the symposia at this stage. Future performance will be measured by the number of completed logs of participating teachers on the implementation of the IT plans within schools, the number of presentations and teachers attending symposia and the production of symposia proceedings.

CONCLUSION
The project as described has as its central aim the upgrading of teachers' skills and professional knowledge in the use of information technology for classroom learning and teaching. In that the project has attracted some 60 teachers to all phases of the project and will draw in an additional number to the last phase to present the outcomes of information technology use in their classrooms, the project appears at this point to be effectively meeting the inservice needs of a wide range of teachers from diverse educational settings. As well, the production and distribution of a booklet of proceedings from the symposia will allow the disseminate the outcomes of the teachers' work across a wider audience in North Queensland. This should further enhance the effectiveness of the project. A longer term outcome will relate to the number of teachers taking up the option to use the project for Bachelor of Education or Master of Education credit. For those teachers, the project has provided a catalyst for ongoing professional development which is likely to continue over a number of years.

References