Quantifying quality

an examination of the factors which define 'quality' in a professional development program

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Abstract: Much has been written about 'quality professional development' however the term 'quality' is difficult to define in such a way that fosters general agreement. 'Quality' must be considered from the perspective of the individual educational organisation, and is determined by the strategic directions, current focus, relevancy of the content to the participants and how successful the program is deemed to be within each organisation. This paper attempts to identify those factors which determine 'quality' within the NSW Department of Education and Training. Then the paper identifies the factors that make this program a 'quality' product by examining a professional development program developed for teachers in small, remote schools and whose students are in the early years of primary school

Key words: professional development, distance delivery, online, quality, teachers K12

1. AN AGENDA FOR PROFESSIONAL DEVELOPMENT

There is a general agreement that quality professional development is high on the agenda for any educational organisation. Although all sectors and all organizations accept the need, and indeed, most commit to significant programs, commitment is of itself no guarantee of effective quality professional development.

In order to discharge properly their professional obligations, teachers need to keep abreast of current developments in pedagogy and developments within their fields of specialisation. They consider that access to ongoing professional development is one of the key requirements of effective teaching. Many students (and their parents) questioned by the taskforce of

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the recent Vinson Inquiry (2003) as to what teachers need to support and sustain their work in the classroom also pointed to the need for ongoing, current training. A recent review of teacher education in New South Wales, reported, "Good teaching comes about through quality training and support, based on expectations of high standards" (Ramsey, 2000). These reports agree that quality professional development is of great importance to teachers. The question however is, what constitutes 'quality'?

Vukelich and Wrenn (1999) state that quality professional development should focus on the needs of participating teachers, provide for participants' meaningful engagement, and should encourage participants to reflect on their teaching. Shephardson, Harbor and Cooper (2002) suggest that quality professional development results when content knowledge is integrated into practical experiences in learning. However 'quality' tends to be a transient term, holding different meanings for different people in different situations. The interpretation of 'quality' is dependent on each educational organization, and is determined by the strategic directions, current focus, and relevancy of the content to the participants and how successful the program is deemed to be within each organisation. Irrespective of the educational system, it is likely that all teachers will have identified these situations and these conflicting requirements for themselves.

The paper has based its examination of the delivery of quality professional development upon the needs of teachers within the New South Wales Department of Education and Training (DET). In particular the paper will examine a specific program for primary teachers in order to highlight the development and delivery of a 'quality professional development' program for teachers in the Department.

2. NSW DET

The New South Wales Department of Education and Training (NSW DET) has its head office in Sydney, Australia. The DET has responsibility for over 2,200 government schools K-12 and 11 TAFE (Technical and Further Education) Institutes and has a workforce of over 150,000 people. The schools, colleges and the workforce are spread across 801,600 sq km.

In the DET Annual Report (2001), the department stated that "in order to maintain leadership in education and training provision we must continue our commitment to quality, responsiveness and the development of the professional skills and capabilities of all staff." (p.3).

What then are some of the issues in this particular organisation which affect the development and delivery of quality professional development?

- Changing curriculum. All syllabuses are regularly updated to reflect changes in knowledge, pedagogy, assessment practices and societal issues.
- Isolation. Many schools, particularly the smaller primary schools, are geographically isolated and their teachers are also professionally isolated. Teachers may have to travel for 2 – 3 hours or longer to reach the nearest sizeable centre.
- Time. Teachers, particularly primary teachers, have little ‘off-class’ time in the working week and therefore little time to spend on anything other than their preparation, teaching, assessment and the needs of their students. While they acknowledge the need for professional development, they have little time to devote to it.
- Delivery mode. Some of the most important outcomes of professional development programs include opportunities to meet colleagues, share ideas and widen professional networks. This tends to occur quite naturally with those programs delivered in the traditional face-to-face way. If anecdotal teacher feedback was the deciding factor for preferred mode of access, then the traditional delivery modes would probably remain unchanged.
- Funding. Professional development is expensive in any organisation but in school education, there are added overheads compared to those in most commercial situations. If teachers are released to attend professional development programs during school time, they must be replaced in the classroom. Relief staff funding tends to be the largest single item in any teacher professional development budget. In the more remote areas of the State, the distances a teacher must travel may mean that a one day attendance can require up to three teacher relief days to allow for travel.

3. OPPORTUNITIES FOR CHANGE

The challenges of curriculum change, providing access and equity to professional development and managing ever rising costs, have provided much of the impetus for the DET to re-evaluate the models and options for delivery in government schools.

Electronic publication and online/remote delivery are becoming increasingly attractive options. These modes provide some solution to delivery problems. However for them to be viable, it is crucial that teachers have access to the appropriate technologies in the workplace and have the skills to use them. Due to several recent initiatives the DET is able to support the use of a range of computer and communications technologies or

ICT (Information and Communication Technology), in teaching and learning and in online training and development.

3.1 Use of ICT in schools

DET has extended and enhanced the use of ICT in government schools K-12 as part of a State-wide program, the Computers in Schools Program (CISP), which began in 1995 with a budget of \$A186.4m. The program comprised hardware, technical support, curriculum support and a range of training and development programs. The professional development component of the CISP program, known as *TILT* – Technology in Learning and Teaching, has been implemented in every one of the 2,200 schools across NSW (Lowery, 1999). *TILT* began in late 1995 and was specifically aimed at those teachers who had not had an opportunity to develop skills in the use of computers in education.

The *TILT* program has grown to encompass a number of similar teacher professional development programs including: *TILT* Plus Science, *TILT* Plus Primary, *TILT* Plus Special Education and *TILT* Plus History. Now that the *TILT* series has been running for several years, there is a critical mass of teachers who have skills and expertise in the use of technology in learning and teaching. Over this period the government has provided more hardware, ensuring that all schools have at least some computers which are of the current industry standard for desktop computing. In addition the DET has greatly improved and enhanced schools' access to the Internet. The DET is now well positioned to move confidently into the development and distribution of electronic materials and the development and delivery of online teacher professional development programs.

3.2 Online delivery in DET

The DET has piloted a number of online programs such as *Log on to Literacy* and *New Technologies New Literacies* (Lowery, 1999). The programs used various delivery media including print, face-to-face workshops, CD-ROM and the Internet. These programs enabled staff within the DET to develop a core of skills and expertise in the still relatively new area of instructional design for online delivery. These early developments have also provided opportunities for a number of teachers to experience online learning and as early adopters both developers and learner- teachers have provided valuable feedback on the online programs.

3.3 Learning from evaluation

Much has been learned from the program evaluations. *Log on to Literacy*, which has been running for three years helps teachers of Years 1 and 2 to implement specific strategies for students experiencing difficulties with reading. The program is delivered over the Internet, supported by one face-to-face workshop and print materials. The online component includes an electronic discussion board facilitated by a mentor who guides the discussion and encourages the participants. Through a longitudinal evaluation of teachers undertaking *Log on to Literacy* the following factors were identified as significant (Davies & Murray, 2000):

Collegiality. The program must be able to provide an atmosphere of collegiality and collaboration. The model which proved successful combines a mix of at least one face-to-face workshop (nominated by teachers as a strength of the program) and ongoing communication through an online discussion board.

Support. Teachers learning online should feel they are not alone. They need quick responses to questions on content and direction as well as technology problems. Support in the program included:

- a mentor who was an experienced literacy consultant and classroom teacher who provided leadership, encouragement and direction for the online discussions which were an integral part of the program;
- technical support (provided by the author) who has both technical expertise and teaching experience and therefore could relate to teachers' frustration with technology and talk through problems without resorting to technical jargon;
- access-many teachers reported that access to technology was difficult due partly to lack of time during school hours and partly to location of equipment in the school, which is rarely located in the teacher's classroom (teachers with a computer and Internet connection at home reported that the flexibility this provided made participation in the program far more attainable);
- infrastructure with computers are networked so Internet access is available in more than one location;
- time for the program using strategies including use of parent help in the classroom;
- funding paid directly to the participant's school to provide relief from teaching so the participating teacher could spend time working on the program.

4. THE PROGRAM - NUMERACY

There are a number of programs currently operating in schools across Australia which support teachers in their teaching of literacy and numeracy. One DET online program in particular shows how quality professional development can succeed when it is well planned, tailored to teachers' needs and appropriately supported.

The program *123 Count With Me* is based on *Count Me In Too™*, a professional development program for teachers of students in the early years of primary school. *Count Me In Too™* is a well established program which began in 1996 in 13 schools and has expanded to over 1380 primary schools in 2002. Teachers implementing *Count Me In Too™* use an assessment methodology called the Schedule in Early Number Assessment (SENA) to make an initial assessment of their students' mathematical abilities which they align against a framework called the Learning Framework in Number (LFN). The LFN provides an explicit framework of students' strategies in early number and enables teachers to recognise the most advanced strategies being used by each student and what level of the Framework each student has achieved. The teacher can then group the class according to their level of achievement and select from graded activities to teach new skills and extend the student's mathematical understanding. Activities are carried out with the whole class, in small groups or individually.

The success of *Count Me In Too™* is largely due to the strong liaison between the mathematics consultants based at the local district office and the classroom teachers using a number of implementation models from consultant delivered demonstration lessons to team teaching with the classroom teacher. These models work well through regular classroom visits.

However other models needed to be developed so that teachers in isolated schools had the same opportunities to learn about and implement *Count Me In Too™*. This need led to *123 Count with me*, based on *Count Me In Too™* but to be delivered by distance education.

4.1 Planning and developing the program

A DET working party began the development process by reviewing *Count Me In Too™* and researching the practice and literature of professional development. Four years' of evaluation reports of *Count Me In Too™* (Bobis, 1999, 2000, 2001, Bobbis & Whitton, 1999) helped identify issues pointing to successes or to reasons for concern. In general, the concerns identified were the need for discussion with the consultant, lack of time for reflection on the new knowledge, new practices, children's learning, and a

need to network about difficult problems with other teachers. The online mentor was appreciated as a source of encouragement and advice, working cooperatively with others facilitated learning and a range of media, a CD-ROM as well as the online communication was most effective.

The working party carefully considered a number of issues including how to simulate the support provided by the consultants, how to demonstrate how *Count Me In Too*TM actually operated in a classroom, how to provide a feeling of collegiality among the participants and how to provide ongoing support for content issues and technology problems. As a result the content based on *Count Me In Too*TM consisted of videos and print materials with ten structured tasks to lead the participants through the content, the program was introduced through a face-to-face workshop, collegiality and collaboration were provided though an online discussion led by a mentor and funding was provided for teachers to attend the workshops and for relief from teaching

The earlier success of the online discussion supported by a mentor resulted in a hybrid CD-ROM/Internet model of delivery further supported by print materials as the most effective solution. The CD-ROM would contain the content and supporting resources and the Internet provide access to the online discussion and any future resources.

4.2 *123 Count With Me* CD-ROM

Using a CD-ROM meant that a set of tools could be incorporated to make use of a rich set of resources which already existed in *Count Me In Too*TM. The tools included planning tools to support teachers with programming, lesson planning and lesson resources, analysis tools to assist teachers in the conceptualisation of the teaching approach and in analysing student assessment result, and an electronic journal to enable teachers to track their progress and reflect on their learning

emlab at the University of Wollongong developed a tool that explained the LFN in detail and provided a “test yourself” exercise using a series of video examples of students. A ‘SENA wizard’ tool was developed to assist teachers to record their SENA results electronically, group the students according to their results with activities for the whole class or small groups.

The metaphor of the primary classroom was the basis for the instructional design of the CD-ROM. The visual background is a classroom panorama around which users can navigate to access three areas: ‘teacher’s desk’, ‘maths corner’ and ‘classroom’ (see Figure 1). Resources can be accessed either through pull-down menus or by clickable icons around the classroom. Support is provided by a Help function and a ‘show me around’ tour of the content and resources.

Figure 1 Section of classroom panorama, 123 Count With Me

4.3 Delivery of the program

At the time of writing the CD-ROM has been developed to beta stage and will be finalised early in 2003. The project is currently being trialled with teachers in small, remote schools. Evaluation of *123 Count With Me* is ongoing. No reports are yet available but anecdotal feedback gained from the discussion board shows that teachers are engaged in the project, they are enhancing their mathematical knowledge and, in some cases, are finding the SENA provides a tool which can more accurately assess their students than any previous methods they used. A teacher reported: "I just love this program as I can see dramatic improvements in the children's mental computations, number recognition and oral counting skills."

The teachers are slowly seeing the value of being able to communicate with others involved in the same program. Comments included: "I enjoyed reading the varied responses from colleagues near and far."

5. CONCLUSION

Defining quality professional development is a challenging process in part because the term quality means different things to different people. Depending on the organisation, its needs, focus and current directions, quality professional development programs will vary and differ. The paper followed the development of one particular professional development program and attempted to identify issues that should be taken into account to produce a quality product. At this point in its implementation, *123 Count With Me* appears to be achieving its aims of providing flexibility,

opportunities for collegiality and professional dialogue, equity and access to quality professional development. A true measure of its success is that it has gone beyond its original brief of providing support to teachers in small remote schools. It is also being embraced by teachers who have access to more traditional professional development programs.

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