

NET*Working 2001 workshop



Title

People: The invisible, unrecognised but essential resource for effective online learning

Date

Tuesday, 16 October 2001 3.20pm – 4.45pm

Facilitated by

Hugh Guthrie, Manager, Dissemination Marketing and Publishing, NCVER

and assisted by

Jennifer Gibb, Manager, National VET Research and Evaluation, NCVER

Presenters

Robyn Hill, Chisholm Institute, Victoria

Ros Brennan, Charles Sturt University, New South Wales

Cathy McNickle, Canberra Institute of Technology, ACT

Joan Cashion, Swinburne University, Victoria

Phoebe Palmieri, Phoebe Palmieri & Associates, Victoria

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What is in this kit

- The program for the workshop
- An overview of the online research program
- The presenters
- What the research has said about:
 - The way online is affecting how we teach
 - The pedagogy and learning approaches used in online delivery
 - The quality of the online experience from a student perspective
 - The support students need when they study online
- Details about the online topic page on NCVET's web site
- Evaluation form

Details about the online research program, managed by NCVET, can be found at <http://www.ncver.edu.au/online.htm>

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The program in detail

This workshop runs over sessions 7 and 8 on day 2 of the NET Working Conference (16 October 2001). It involves:

- An introduction by the facilitator
- A brief exercise involving participants
- Presentations by the researchers
- Opportunities for participation by those attending the workshop

3.20pm	Introduction by facilitator: Hugh Guthrie <ul style="list-style-type: none">➤ Welcome➤ Introduction of program for the workshop and presenters➤ The supporting resources:<ul style="list-style-type: none">• the stand• the web page
3.25pm	Warming you up – Online delivery – the good, the bad and the plain ugly: Hugh Guthrie and Jennifer Gibb <ul style="list-style-type: none">➤ Group discussion at tables➤ Consolidating the discussions
3.35pm	Setting the scene – <ul style="list-style-type: none">➤ The size and scope of online delivery in VET – Robyn Hill➤ The pedagogy and learning approaches used in online delivery – Ros Brennan
3.55pm	Good practice and support – <ul style="list-style-type: none">➤ The quality of the online experience from a student perspective – Joan Cashion and Phoebe Palmieri➤ The support students need when they study online – Cathy McNickle
4.15pm	From the floor – facilitated by Hugh Guthrie <ul style="list-style-type: none">➤ Here's your chance for input
4.40pm	Evaluation and final comments
4.45pm	Finish

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An overview of the online research program

Aims of the research program

In order to increase the VET sector's understanding of the pedagogical, technical and managerial aspects of flexible learning, the Flexible Learning Advisory Group (or FLAG) has commissioned programs of research in both 2000 and 2001 which are focussing on issues related to online delivery.

Scope of the research

In 2000 five research projects were commissioned. In 2001, a further four projects have been established. In total, nine projects are underway covering a large number of FLAG's research priorities which are:

- The size and scope of online activity in the VET sector
- What constitutes a quality online learning experience
- Learner behaviour and support needs
- Pedagogical issues
- Cost effectiveness
- Quality in online assessment
- Regional perspectives on online learning (two projects)
- Connections between e-business and online learning

Details of these projects can be found on the online topic page on NCVER's web site at <http://www.ncver.edu.au/online.htm>

In addition, NCVER has commissioned research, two reviews of research and a Getting to grips in relation to online delivery on its own behalf. These, too, can be found on the NCVER online key topic page.

Current projects

Researching online usage in the VET sector (NR0F06)

Robyn Hill, Chisholm Institute

The research aims to determine the forms of online delivery in use in the sector, as well as their relative size and extent of use. The research aims to identify, describe and analyse the size and the extent of use of online learning, paying particular attention to the program areas that have successfully taken it up and used it. From this study a range of features of online learning, the providers and users have been highlighted and explored in greater detail through case studies.

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One size doesn't fit all: Pedagogy in the online environment (NR0F05)

Ros Brennan, Charles Sturt University

The purpose of this project is to examine and make explicit the assumptions and practices which underpin the pedagogy of online delivery of VET using a variety of methodologies. It approaches the issue of online pedagogy from different vantage points: the practices and views of teachers; the learning styles and preferences of students; the implicit pedagogies of various modes of delivery; the identification of indicators of online pedagogical effectiveness based on the literature and an examination of a number of online courses in the VET sector.

Quality in online learning: the learner's view (NR0F03)

Joan Cashion, Swinburne University and Phoebe Palmieri, Phoebe Palmieri and Associates

This research project aims to investigate the meaning of "quality learning" for VET online learners. The study has used a mixture of qualitative and quantitative methods to elicit the views of students and VET organisations on what constitutes a quality online learning experience.

Learner expectations and experiences: an examination of student views of supports in online learning (NR0F02)

Cathy McNickle and Berwyn Clayton, CURVE, Canberra Institute of Technology

The purpose of this study is to:

- Explore the theoretical framework/models underpinning learner support and intervention strategies in online learning
- Examine the current assumptions and practices in the delivery of online VET programs
- Investigate learner expectations and experiences of current practices at various stages in programs of study
- Develop guidelines for online support for both practitioners and learners

The cost effectiveness of online delivery (NR0F04)

Richard Curtain, Curtain Consulting

The project aims to assess the cost effectiveness of online delivery based on 6 case studies of VET organisations which have made significant use of online learning.

New projects

A range of the projects are not covered at this workshop. This is because they have only just begun. Most are due for completion about the end of 2002. However, some details about each are provided below:

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Applying creative ideas to the development of quality online assessment in VET (NR1F02)

Robyn Booth, Vocational Education and Assessment Centre, Northern Sydney Institute of TAFE

The purpose of this study is to examine online assessment methods and strategies used in VET and in other education sectors, nationally and internationally, to determine the range of methods used, the pedagogical and technological reasons for selecting an assessment approach, the validity of these assessment approaches and possibilities for future development in the VET sector.

Learning online: Benefits and barriers in regional Australia (NR1F04)

Chris Horton, Wodonga Institute of TAFE

The purpose of the study is to examine the factors that influence the uptake and influence of online learning in regional Australia, looking in particular at the benefits and barriers this mode offers either 'stand alone' or as part of a structured program of delivery.

E-business and online learning: Connections and opportunities for VET (NR1F05)

John Mitchell, John Mitchell & Associates

The purpose of this study is to identify the existing and potential connection between e-business and online learning and opportunities for applying e-business solutions to the online VET environment, to identify examples of good practice in applying e-business to online learning, and to identify benefits, barriers, risks and other factors impacting on the application of e-business principles and processes to online learning.

Online learning in regional Australia: Benefits and barriers (NR1F03)

Sue Kilpatrick, University of Tasmania

The purpose of the study is to investigate the extent of uptake of online delivery in regional areas compared to metropolitan areas and to determine the benefits from and barriers to online learning that are faced by those living in regional areas.

To find out more

Visit:

- NCVER's focus page on online delivery at <http://www.ncver.edu.au/online.htm>
- The FLAG home page at <http://flexiblelearning.net.au/index.htm>

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The facilitators



Hugh Guthrie: Hugh Guthrie is the Divisional Manager, Dissemination, Marketing and Publishing Division at the National Centre for Vocational Education Research in Adelaide. He has been a university academic, the research officer at the Royal Melbourne Institute of Technology (where he was, for a time, Head of their Curriculum Development Group) and has worked at the NCVER in a variety of research positions since 1987. His most recent position at NCVER involved managing the national VET research and evaluation program.

Hugh holds masters degrees in both science and education. His educational expertise includes needs analysis, curriculum and instructional design, educational evaluation and the development of performance measures.

His current work at NCVER involves managing the division which is responsible for publishing, marketing and disseminating the outcomes of the NCVER's research, statistical and surveys work. He is also involved in conceptualising, developing, implementing and marketing a range of value-added products and services.

Phone: (08) 8333 8413, **email:** hughguth@ncver.edu.au



Jennifer Gibb: Jennifer Gibb is currently manager, National VET Research and Evaluation Branch at the National Centre for Vocational Education Research. Prior to this she was engaged as a researcher at NCVER. The national VET research program currently has 80 projects in progress, 12 of which relate to online learning in the VET sector. **Phone:** (08) 8333 8450, **email:** jenniferg@ncver.edu.au

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The presenters

We have provided you some information about the facilitators and presenters for today's workshop – who they are, what they have done and how you can contact them if you wish. We've even given you pictures!



Robyn Hill: Robyn Hill currently manages the Learning and Development Unit at Chisholm Institute of TAFE in Victoria. As part of that role Robyn manages the work of the Chisholm Centre for Innovation and Research, an internal community of teachers and researchers who aim to foster applied research within the Institute as part of the VET sector. The main focus of Robyn's current role draws on years of work in professional development in the health and vocational education sectors working with teachers, trainers and assessors in developing their professional skills and qualifications. This Project, *Researching the size and scope of online usage in the VET sector*, has brought Chisholm Institute together with Monash University and West Coast college of TAFE in a unique working arrangement. **Phone: (03) 9209 5727, email: robyn.hill@chisholm.vic.edu.au**



Ros Brennan: Ros Brennan is a lecturer in Vocational Education and Training at Charles Sturt University (CSU) and a member of the Group for Research in Employment and Training. She completed her Master in Education (CSU) with a specialisation in online delivery and support of VET. Her teaching areas are: language, literacy and numeracy, communication, curriculum implementation, vocational education in the secondary school – curriculum and practice, teaching and training practices in VET and the design and operation of the VET practicum components of the VET courses at CSU. She is the Faculty Online Support Coordinator where the focus of her activities is the use of technology to enhance teaching and learning. She has also recently a Review of research entitled 'All that glitters is not gold: Online delivery of education and training'. She has worked as Course Coordinator for CSU VET programs, managing the progress of over 400 distance education students. **Phone: (02) 6933 2745, email: rbrennan@csu.edu.au**



Joan Cashion: Joan is the Director of the TAFE School of Social Sciences at Swinburne University, with a background in Industrial Sciences. She has been a strong advocate for flexible delivery and in particular for online education. In her spare time she is studying for her Doctorate in Education - evaluating the quality of online education. She has recently completed an ANTA Flexible Learning Fellowship. **Phone: (03) 9210 1164, email: joan.cashion@swin.edu.au**

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Phoebe Palmieri: Phoebe Palmieri is an independent consultant, with clients including universities, TAFE Institutes and national and state VET agencies. Her work includes research, evaluation and professional development, with an emphasis on e-learning. Her interest in online learning stems from long experience in distance and flexible learning. **Phone: (03) 9499 7213, email: p.palmieri@a1.com.au**



Cathy McNickle: Prior to her appointment to Canberra Institute of Technology (CIT), Cathy was a Communication and Humanities Teacher in the VET sector with NSW TAFE and then with the private sector.

As a researcher with the Centre Undertaking Research in Vocational Education and Training (CURVE), Cathy's main areas of interest have been in flexible delivery, especially in the area of learner support. This interest is widespread incorporating all aspects of support and stems from her experience and interest in distance education and as a Communication teacher.

Cathy is presently an external learner at QUT, studying Law. The next area of research she would like to undertake is in the area of *Motivation - how to maintain this in online learning*.

Phone: (02) 6207 4983, email: cathy.mcnicke@cit.act.edu.au

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What the research has said about

The presentation here focus on:

➤ **Setting the scene**

These two papers provide information about one set of people and their use of online delivery – the teachers:

- The size and scope of online delivery in Australia
- The pedagogy which is being used to underpin online delivery

➤ **Good practice and support**

These two papers are concerned with the most important set of people in online delivery – the students.

- What constitutes ‘quality’ in online delivery
- What learners expect, experience and appreciate in times of the support they receive when they study online.

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Setting the scene

The size and scope of online delivery in VET

Robyn Hill, Chisholm Institute

This research aims to determine the forms of online delivery in use in the Australian Vocational Education and Training (VET) sector, as well as their relative size and extent of use. This project identifies, describes and analyses the size and extent of use of online learning, paying particular attention to the program areas that have successfully adopted it. The research contributes to the knowledge about online learning in the VET sector by looking beyond the specific contexts to identify the facilitators and inhibitors to successful experiences.

The research sets out to answer ten key research questions, which have been addressed using qualitative and quantitative methodologies.

1. What constitutes online learning? What are its key features and variety of forms?
2. How extensively is online learning being used as a stand-alone process?
3. What other delivery approaches do online learning complement? How, and to what extent, is it used to complement these approaches?
4. Who is developing online programs?
5. How are providers supporting online learning? What are the perceived strengths and weaknesses of the alternative approaches?
6. How extensively is online learning used:
 - within particular States/Territories?
 - according to provider type (public, private, ACE, work or industry-based, schools with VET offerings etc)?
 - by particular program areas?
 - at particular levels of qualification?
7. What proportion of the total program offerings in a particular occupational industry area has online options?
8. What are the characteristics of the students enrolling in such programs in relation to the overall VET client base?
9. To what extent does online learning appear to support or discriminate against particular equity groups?
10. What particular opportunities for using online learning, if any, are not being exploited adequately at present?

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Chisholm Institute of TAFE and West Coast College of TAFE were joined by the Computer Education Research Group of Monash University. Project work has engaged:

Robyn Hill	Project Manager, Chisholm Institute
Robin Tunbridge	Support Project Manager, Chisholm Institute
Graeme Young	Research Analyst, Chisholm Institute
Vikki Leggett	Researcher, Chisholm Institute
Peter Malone	Project Researcher, Chisholm Institute
Moirra Watson	Manager, QRD Consulting, West Coast College of TAFE
Renu Sharma	Consultant, QRD Consulting, West Coast College of TAFE
Selby Markham	Research Fellow, CERG, Monash University
Judithe Sheard	Lecturer, School of Computer Science and Software Engineering, Monash University

The project has also been supported by an associate team and an advisory group.

Project methodology and initial findings

The methodology used in this project was based upon a mixture of quantitative and qualitative approaches. This brief paper outlines the key stages of the Project, and includes a small commentary on the findings at each stage.

Contact with TAFE Institutes

The Project Team made initial telephone contact with a key person at each of the 85 TAFE Institutes. This contact had a dual purpose:

- To identify one or more suitable individuals to whom we might send the paper-based survey (the team was aiming for at least five people in each Institute), and
- To gauge an overall perspective of the level of online activity in the Institute, and whether there was any promotional information that might be forwarded to the project team.

The data gathered resulted from answers to four questions, and a number of issues arose from this information gathering. It became apparent that few Institutes have a single staff member or unit that coordinates online delivery from the organisation. Most institutes could nominate at the most, one or two individuals that they thought dealt with the mode. However, these people were difficult to contact.

Paper-based survey – addressing research questions 1, 3, 4, 5, 8, 9, 10

The survey was developed to gather information in relation to the research questions. The feedback from the initial contact however, revealed a diverse range of understandings of ‘online’ – whether in terms of an educational context, delivery modes or learning opportunities and activities. The survey was therefore constructed to further the ability of the project team to construct an inclusive definition for use in the project.

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To this end, the survey offered respondents the opportunity to rate 13 proposed definitions against their individual understanding. The survey was deliberately constructed to gather data that provided responses to seven of the 10 Project research questions as it was determined that three of the questions would not readily be answered by individual staff in each of the Institutes; these were explored using another format.

The survey was sent to every TAFE provider within Australia. A total of 551 questionnaires were distributed through mail and e-mail to contacts established in each TAFE provider. A total of 138 surveys (25%) was returned either by mail or through the Internet.

Survey respondents (59% female and 38% male as identified) demonstrated a range of primary roles in relation to online education:

- subject deliverer - 35
- subject developers - 16
- deliverer and developer - 67
- online manager/coordinator - 59.

The largest age group is the 35 to 49 year age group (58%) with over half the returns followed by the 50 to 59 year age group (28%). Regional orientation of respondents was capital city (47%), regional city (31%) and country area (22%).

In examining the online delivery of a subject over half of the survey respondents (52%) answered that they deliver the subject totally online. Conversely just under half of respondents (48%) answered that there was no classroom contact for the subject and almost half answered that there was no workshop/laboratory/fieldwork contact for the subject. A significant number of respondents indicated that learning materials are available totally online.

State-based organisation interviews – addressing research questions 2, 6, 7

The project team, in consultation with NCVER, considered that three of the key research questions, two, six and seven would not gain sufficient consideration through the paper-based survey. While a trial analysis was made of the statistical returns to the Office of Employment, Training and Further Education, Victoria, in terms of Institute-based statistics on online hours delivered, this revealed limited usable responses to the specific questions of extent of online learning as a stand-alone process, the extent of its use in States and Territories in terms of programs and qualifications, and occupational industry area. The team therefore decided to approach a range of state-based organisations to ascertain this information. A further set of Interview questions was put to state representatives of organisations currently dealing with the management of whole-of-state online delivery in Australia.

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Each organisation was asked to respond to eight questions in relation to the size and scope of online delivery in their state. These questions were:

1. What modules are delivered online?
2. What Institutes/Registered Training Organisations are delivering the modules?
3. What modules is each Institute delivering?
4. Which modules:
 - Are delivered totally online?
 - Are supplemented with another mode of learning/delivery or resource?
5. How many students are involved in your state in studying:
 - Totally online?
 - Partly online?
6. Is it possible to align these online/partially online modules with accredited programs/courses and recognised qualifications, that is: AQF 2-5?
7. Which modules equate to:
 - learning modules/Units of course based curriculum?
 - Units/elements of competence in Training Packages?
8. What is the total online offering in line with industry/occupational groupings?

➤ Agriculture, forestry & fishing	➤ Transport and storage
➤ Mining	➤ Communication services
➤ Manufacturing	➤ Finance and insurance
➤ Electricity, gas & water supply	➤ Property & business
➤ Construction	➤ Government administration & Defence
➤ Wholesale trade	➤ Education
➤ Retail trade	➤ Health and community services
➤ Accommodation, cafes & restaurants	➤ Personal & other services

The analysis of this data is ongoing.

Semi-structured interviews

The qualitative component of the research aimed to gather data that would provide the basis for five case studies. The purpose of these case studies is to elaborate on the basic data collected by the survey forms, and identifies those sites which demonstrated:

- Innovative practice in online delivery
- Accommodation of diversity of learner needs
- People or processes that have something additional to offer to other online practitioners.

The case studies were conceptualised to explore in detail, the rationale behind any particular chosen model of online delivery, and assist to identify good operating practices for dissemination within the

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VET sector. The survey forms had already asked respondents to indicate whether they were willing to be followed up, and of those that indicated 'yes' 14 respondents were selected for interviewing.

The material from these 16 interviews reveals valuable qualitative data about the people engaged in online work in VET. The following points highlight some of the interviewees' responses:

- online developments are a reaction to pressure to develop online materials rather than well thought through educational processes
- development of online programs are viewed as a potential source of revenue
- few could articulate the role of online delivery in the future directions of their organisation
- individuals operate in relative isolation
- current networking is driven by state/system-based initiatives, rather than teacher-based initiatives
- individuals received partial or no funding to develop their online subject or course unless it comes from state projects or from Institute or Departmental funds
- resources allocation does not reflect real-world costs; updating is not easy
- there is little general understanding of technical issues relating to development.

Case Studies

The primary purpose of presenting the five Case Studies was to reflect unique and remarkable practice. They are not intended to be compared and contrasted, rather to reflect very different views of what is happening in the development and implementation of online delivery across the country. They range from South Australia where online delivery appears to be in its infancy through to New England where there is a very well developed approach.

Each of the case studies provides a different perspective on the way professional development of staff might be implemented and managed. For example, the Victoria University group is more involved in what might be called a collegiate model where they explore and exchange ideas and foster development. New England Institute of TAFE and Curtin Institute of Technology talk in terms of more formal training programs although these two are reflecting an institute wide approach, while Victoria University presents a more localised approach.

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The pedagogy and learning approaches used in online delivery

Ros Brennan, Charles Sturt University

What were we looking at?

The purpose of this study is to examine and make explicit the assumptions and practices which underpin the pedagogy of online delivery of VET using a variety of methodologies.

It approaches the issue of online pedagogy from the following vantage points:

- the practices and views of teachers;
- the learning styles and preferences of students;
- the implicit pedagogies of various modes of delivery;
- the identification of indicators of pedagogical effectiveness based on literature;
- an examination of a number of online courses in VET.

The objectives of the study are:

1. To examine a range of current online pedagogical practices in VET and how these intersect with student learning styles and preferences,
2. To generate a set of Pedagogical Effectiveness Indicators based on these practices and apply these to a range of current course offerings,
3. To provide a robust body of knowledge in accessible formats that teachers/ trainers can use to inform the methods of delivery that they use in VET to maximise the match between student needs and the technology available,
4. To provide a robust body of knowledge, disseminated in a variety of formats, that policy makers can use when deciding on the type and extent of technology to fund and the kinds of staff and student support that are necessary to maximise the investment in technology.

What we did

Literature Review

The Literature Review focuses on the compatibility between online delivery, teacher/ trainers' epistemologies and student learning styles. It specifically addresses the following questions:

- how effective is online delivery in catering for different student needs and learning styles?
- how is knowledge constructed on line and how are skills learnt online?

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- what constitutes a robust body of knowledge about online pedagogy?
- how does world's best practice inform the discussion of the pedagogy of online delivery of VET in Australia?
- what factors are driving pedagogical change in the online delivery of VET?

The literature review incorporates material from both Australia and overseas and all were subject to a summative meta-evaluation. This meta-evaluation weighed up the appropriateness of, and consistency between, the various responses to the focus questions above and the reported outcomes of the studies.

Detailed Interviews

Interviews have been conducted with people working in policy development and implementation of online delivery of VET in Australia.

Development of Pedagogical Effectiveness Indicators

These indicators have been extracted from cross-referencing the results of the literature meta-evaluation with the opinions and ideas of the interviewees.

Workshops at 3 sites

The purpose of the workshops was to:

- explain the focus of the project and role of the sites in achieving the outcomes.
- collaboratively design the questionnaires that will be administered to teachers and students based on the potential PEIs identified in the Literature Review.
- tap into state and national intelligence about the sites for the administration of the questionnaire (3-5 staff and 12-15 students per site).
- apply the concepts of 'framing' (Bernstein, 1996) and 'productive pedagogies' (Ailwood et al, 2000) to materials and pedagogical practices in the 3 sites.

Development of the Questionnaire

The focus areas for the questionnaires have come from the Literature Review and meta-evaluation; the detailed interviews and the workshops.

What we found

The Literature Review and the interviews generated a long list of attributes of online pedagogy that work well in specific circumstances using different technologies and a range of learners. They also reflected a growing sophistication in thinking about the ways in which the individual elements of pedagogy contribute to effective online learning. The meta-evaluation of the literature has extended this thinking and has provided a set of themes across a range of studies.

The defining criteria that have been used to generate these themes are:

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- the frequency of their occurrence within the literature
- the extent to which existing research has approached the topic in a holistic way leading to generalisations
- the level of synthesis provided by the interviews
- the extent to which they fit within the concepts of 'framing' and the elements of 'productive pedagogies'.

The following list is the initial indicators of online pedagogical effectiveness that and they have been grouped thematically to provide a working framework for discussion and comment. Pedagogical effectiveness in an online environment is indicated by:

- a learner centred environment
- constructivist approaches to teaching and learning
- high quality materials design
- teaching and learning strategies that develop cognitive skills
- high levels of interactivity between all participants
- guaranteed and reliable forms of access to the technology
- quick and easy access to the training site and the online technology
- engagement with the online materials
- learning experiences that encourage synthesis and analysis
- opportunities for 'deep learning'
- consistent levels of feedback
- thoughtful matches between materials, learning styles and learning contexts
- a model of delivery that includes thorough planning, monitoring, reviewing and evaluating of course materials and student progress
- a range of available navigational choices for students
- teachers who are imaginative, flexible, technologically gymnastic, committed, responsive and expert communicators.

Implications for managing change and supporting students and teachers.

The literature reviewed and interviews conducted indicate that there are no absolutes in getting the 'right mix' of indicators to guarantee effective learning. The realities of online teaching and learning acknowledge that there is a continuum along which teachers and students are located at any one time and it is the complex interaction of these that define the current pedagogy.

Further investigation of this complex interaction - to be conducted through the implementation of the remainder of the research methodology - is needed in order to provide guidance for those who are managing, teaching and learning in the online environment.

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Good practice and support

The quality of the online experience from a student perspective

Joan Cashion, Swinburne University and Phoebe Palmieri, Phoebe Palmieri & Associates

Aim and Purpose of the Research

In June 2000, NCVER funded the research project “Quality in Online Learning: The Learner’s View” to investigate the meaning of ‘quality learning’ for VET online learners. The learners did not have to be distance online students, but included all students who were learning through the use of the online technologies. The aim was to elicit the views of these students, educators involved in online learning and VET organisations to determine what constitutes a quality online learning experience.

Methodology

The study uses both qualitative and quantitative methods to gather information and opinions on what determines quality online learning. The quantitative data has been obtained online through an online questionnaire, which can be found at: <http://online.tafe.swin.edu.au>, while the qualitative data has been gathered at focus groups, and through interviews.

The student data has only been obtained from students who are still studying online. The scope of the research did not include students who have dropped out, nor students who have tried to study online and did not even get to first base.

A pilot study of 55 students was carried out October – November 2000 using just one organisation. The difficulties in collecting data nationally through many organisations started to become apparent at this stage. The collection of data nationally started in earnest in February 2001 and has been a difficult and slow process. This paper analyses the data received by the end of September 2001. At that stage there had been 319 student responses in the main study which have been combined with the pilot study to give data from 374 students. Responses from 358 were usable.

The aim was to reach 500 students in the national study.

Quality Online Learning – what are students saying?

The critical question in this research was to determine if the students thought they were undergoing quality online learning, and if so, what were the factors that made it quality learning.

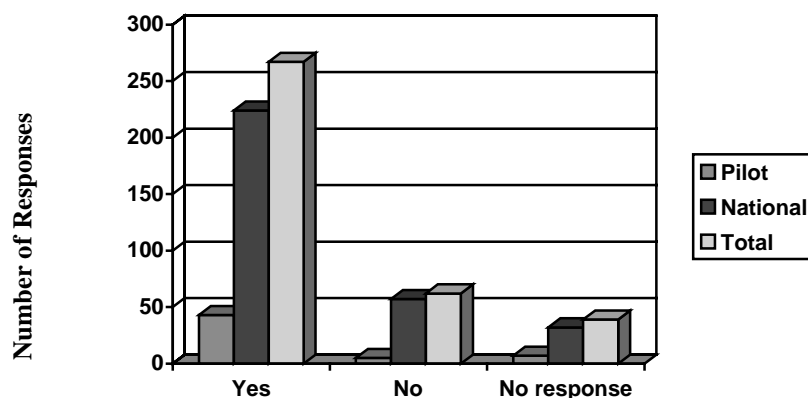
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Quality Online Learning

73% of all students responded that they were getting a quality online learning experience. 39 students left this question blank, so 81% of all responses to this question were positive.

Is this unit giving you a quality learning experience?



Factors for Quality

The main quality factor has been flexibility and convenience, with teacher responsiveness being a very important second. The TOP TEN are detailed below

Areas of Quality	Pilot	Main	Total
Flexibility/ convenience – time, place, pace	18	76	94
Interaction with Teacher	2	46	48
Access to a wide range of online resources	10	28	38
Quality of materials and course design	4	33	37
Uses/ improves computer/ online skills	4	19	23
Interaction with other students	3	18	21
Online assessment - instant feedback exercise, practice	6	11	17
Communication - email, chatrooms	6	11	17
Learning style, reflection, multitask, independent learning	2	12	14
Novelty, Variety	6	6	12
And the next factor is:			
Hybrid - balance of f-2-f and online		7	7

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Flexibility

The flexibility provided by online study was very important to the students. The following responses came from students through the free form question of “What factors (if any) made it a quality learning experience?”.

All aspects of flexibility were significant – PLACE, TIME AND PACE. and this extended into mode of learning – to reflect and time to prepare.

“Accessibility after hours, flexibility, repetition when I need it”

“I work full time on a rotating shift so I can’t get to classes on specific days at specific times. Doing an online course – it’s easy for me to work when I am free”

“I can work as I learn and learn as I work”

“I can choose when I do modules and I can finish them quicker than the allotted time”

“It’s convenient as I have small children”

“I can work at my own pace from home”

“You can continue just where you left off”

“No rush. Took my time.”

“Having the freedom to choose when I have time to study and not having to keep to a timetable has been a great benefit to myself.”

Teacher Responsiveness

Students were very appreciative of the access to the teacher. They liked email contact and the help provided through the online medium. A sample of these responses to “What made it a Quality Learning Experience” can be seen below.

“A resourceful and responsive teacher on line”

“Prompt help from my teacher”

“Accessibility to the teacher when needed

“Good facilitation”

“great tutor”

Feedback and mentor support were also very important – whether from the teacher or from other students. “Good feedback from teachers - helpful communication from teachers in response to problems” and “Speed of reply to questions” and similar comments featured in the responses.

Resources and Content

There were many very positive responses about the content, links and access to other materials.

“I was apprehensive in the beginning but the course really gave me a lot of information and resources on the web that I learnt from with out needing books offline”, “The course content is very good”, “Quality of course material on line with hyperlinks to other sites” and “ a large choice of related links and quick access”

Improving Computer and Internet Skills

This was well summed up by the following response which was echoed by quite a few other students. “Gives us a chance to enhance our skills using the computers and the Internet.”

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Interaction with other Students - and Communication

The communication boards, email and chat facilities have provided a much appreciated dimension to online learning.

“Ability to share knowledge with other students.”, “Discussion boards where you can see answers to questions and help others in need”.and “The fact that you can speak to class mates through the chatting rooms and conferencing rooms” has made it a quality learning experience for these students

Assessment

Online assessment provided some good challenges and speedy feedback that were appreciated by students

“Challenging practical assignments”, “Easy access to tests” and “Automatically corrected tests” were some of the statements that learners thought made the online experience one that provided quality learning.

Learning Style

From an educators perspective it is very interesting that quite a few students commented on their style of learning with respect to the online medium. The fact that students are reflecting on this is very encouraging. A total of 14 student stated how online learning suited their learning style. This is 4% of the responses, though many responses commented on more than one aspect of quality. The specific aspects of learning style mentioned were:

- Independent learning (3)
- Self organisation , motivation– self pacing (3)
- Time to reflect (2)
- My commitment (2)
- New challenges (1)
- Forcing me out of my comfort zone (1)
- Multi-tasking (1)
- Responsibility for own learning (1)

Novelty and Variety and Hybrid Delivery

Some students just appreciated the change. Here was a different learning environment and the quality was in it being different. This facet needs further exploration along with the benefits of hybrid delivery where the mixture of face-to-face and online education can enhance the total delivery package.

“ A highly interactive course that has a good balance between online and f2f” and “many different things”

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It wasn't all good!

While only seven areas rated more than 10 negative responses, almost as many students complained about aspects of the technology as were delighted with the flexibility provided with online learning. Problems with assessment presented the next greatest difficulty, and these problems ranged from lack of clarity with requirements, trouble submitting work and lack of adequate or timely feedback. Students missed having an interaction with a teacher and some really wanted that face-to-face experience. Others complained about the time it could take to get a response for a teacher.

➤ Problems with the technology – both with computers and the Internet	74
➤ Need for induction – this has been picked up from comments on the confusion, lack of instructions, need for computer skills, need to understand the jargon	53
Closely related to this is the time required to be familiar with the online environment which was mentioned in a further 5 responses	
➤ Problems with assessment	43
➤ Lack of interaction with or timely response from teacher and missing face-to-face interaction	29
➤ Some students found it difficult to get motivated, needed self discipline or found it boring	22

Other factors mentioned included:

➤ Poor quality materials, design , navigation, errors in links, files	18
➤ Time committed and wasted time	10
➤ Institute's organisation	9
➤ Passwords (lost)	6
➤ Cost	2

What can we learn from this?

Flexibility is exceedingly important to students. While these data need further analysis to pull out all the threads and cross correlation for flexibility, a quarter of the students specified that one or more aspects of flexibility were important to them. The pace issue is particularly interesting when considered along with the comments about “learning style” and learners analysis of this for themselves. Quite a lot of these learners were aware of how they were learning and what mattered to them to enable them to learn. This is a clear indicator of the importance of learner centred education online.

The importance of good teachers, facilitators and tutors is also very significant. This gives a very strong message to VET Organisations. Online is not about replacing teachers with online content. Online learning is successful through the work of good teachers online. It is essential there are clear

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standards and expectations regarding the level of teacher interaction online. It is a very important aspect of the online learning, but can also be a problem for both students and teachers given the time required for the teacher interaction to be done well, and timely responses need clear definition. Just what is timely, and when and how often can a teacher be expected to be at the end of the line?

Technology is a critical factor to positive experiences. Access, speed and reliability are essential. This must be the baseline for online education. Students were often confused with the technology and the courses. Induction and clear instructions are essential. Organisations must build in to their online provision a gentle introduction to the technology, to managing the medium, to the online course structure and to studying online.

Online education provides an enormously flexible medium to provide student centred and appropriate learning structures and supports for many students. The importance of face-to-face education alongside the online medium is very important. As one student identified in their response to the factors making it a quality learning experience.

“ * A highly interactive course that has a good balance between online and f2f
* A resourceful and responsive teacher, easily accessible online and offline
* A clearly laid out program and assessment”

Add reliable and accessible technology to that and most student experiences would be positive.

The support students need when they study online, Cathy McNickle, Canberra Institute of Technology

This study was a National Research and Education Committee project undertaken in 2000. It was conducted in consortium between Canberra Institute of Technology and Southbank Institute of TAFE, Brisbane.

The aims of the study were to:

- Explore the theoretical frameworks/models underpinning learner support and intervention strategies in online learning
- Examine the current assumptions and practices in the delivery of online VET programs
- Investigate learner expectations and experiences of current practices at various stages in their programs of study
- Develop guidelines for online support for both practitioners and learners.

The above aims were addressed through the following research questions:

- What are the key frameworks and models for learner support in an online environment?
- Are online training providers meeting the support needs of their learners?
 - What support do online learners expect from providers?

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- What are the limitations in current support systems?
- What are the characteristics of best practice examples of learner support in online delivery of VET?
- How can learner support for online learning be enhanced in a cost-effective manner?

Online delivery is largely market driven and the demand for this mode is now at local, national and international levels.

Through the use of technology, learners have greater flexibility and control over the time, pace, place and resources for learning. Technology has enabled the development of interactive environments where the learner is actively involved in the learning process. Learners are now able to use technology to effectively communicate with many others for purposes of learning. Web-based technology also provides access to databases and homepages where resources for learning could be referred. The focus of customisation is on realising the strengths or weaknesses of learners and addressing their needs accordingly.

The need for supporting learners has been highlighted by a number of authors. The need for intervention strategies and support for learners have also been emphasised in studies investigating non-completions in VET programs. There is research on the quality of online learning, however much of this is inconclusive. To this effect, how the use of technology enhances learning also remains unclear.

Literature has shown that much of the emphasis has been on the technological component of online delivery as providers have grappled with this transfer of learning from the traditional classroom mode to online.

This paper will report on learners' experiences and expectations and teachers' experiences. It will also include examples of innovative practice, issues for RTOs to consider and guidelines for online support.

Methodology

The methods used to undertake the research included:

- A review of websites and other databases of online providers
- A survey of online learners in a range of RTOs
- Brief interviews with key staff responsible for online delivery within RTOs
- A review of the literature.

The findings were compiled from 201 responses from learners who represented 23 private and public institutions across New South Wales, Queensland, Victoria, Australian Capital Territory and South Australia.

A summary of findings from interviews and surveys of coordinators and teachers representing private and public institutions across New South Wales, Queensland, Victoria, Australian Capital Territory

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and South Australia, are also included. It should be noted that the response rate was limited, therefore should be seen only as an *indicator* of the target group.

What support from providers do learners expect and value?

Findings

The transition of learning from the traditional classroom mode to online is an ongoing challenge. That is why online learning support is essential for successful completion of courses. Throughout the research for this study, both in the literature and in the survey, online learners have highlighted key areas of support that are necessary during pre-enrolment / enrolment and during the learning experience, with technical assistance being of critical importance.

Pre-enrolment/enrolment

Services and support for both the pre-enrolment and enrolment processes are a necessity for online learning. Enrolment requires user-friendly procedures and simple steps in order for learners to enrol without problems. Therefore, the pre-enrolment support needs to be accessible. One interviewee demonstrated the importance of this:

*I am very disappointed in the lack of support I have been getting from the start. The course was supposed to start in July and I am **still** waiting for some learning material... please tell me where to go to get started on this course.*

Experiences like this are not uncommon. The study completed by Harper et al (2000) *The Online Experience – A review of the state of Australian online education and training practices*, reaffirms how many learners' experiences are similar. Lack of pre-enrolment/enrolment support can affect the learners' motivation to even commence online courses and this can reflect badly on the course provider.

The top five expectations of learners at this time, as expressed in the survey, were:

1. Detailed information about what is required to complete the module/course
2. Detailed information about the courses
3. Security of personal details on the institute's database
4. Instructions on whom to approach for help
5. Information on how to enrol

Concerns were also raised about realistic timeframes. Sometimes timeframes were impossible to meet, especially when learners were not adequately prepared.

Learning and teaching

Total support throughout the entire learning and teaching process was deemed important by interviewees. Some helpful examples from learners were:

- Regular and prompt feedback

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- Email/phone/face to face regular contact
- Clear navigation through the learning materials and entire course program
- Constant and ready access to the actual course
- Noticeboards, FAQ boards, chat rooms
- Consistency – same tutor, same contact details, consistent access
- Online exams and course material
- References to other resources and learning materials
- Reliability – of the material, teachers, server

The above list illustrates the importance of learner support – ie. to have the same support and facilities provided to ‘on-and off-campus’ learners. Initially, the online learner group was seen as not requiring the same support because they were assumed to be more mature, more independent and more self-sufficient. Whilst the majority of online learners do fall under these characteristics. This assumption overlooks the fact that a learner is learning and therefore requires support.

The Institute for Higher Education Policy (2000), in its report on *The Quality Online Benchmarks for Success in Internet-based Distance Education*, included seven benchmarks mentioned in current literature. One of these, learner support, mentioned the fact that services found in the usual college campus such as admissions, learner training and assistance etc should be as accessible within the virtual environment as it is on campus.

The survey results support the results from the interviews. The top five expectations for learning and teaching were:

1. Clear statements of what they are expected to learn
2. Helpful feedback from teachers
3. Clear requirements for assessment
4. Communication with teachers using a variety of ways, e.g. email, online chat, face to face
5. Timely feedback from teachers

Learners who have undertaken courses via the TAFE Virtual Campus, in partnership with the Cyber School at William Angliss College in Victoria, have successfully finished modules due to effective learning and teaching support. Mary Stewart-Craig explained the success of the program:

The major factor in this success was the support given to students at a local level... Where school mentoring was strong, students excelled.

(Scott 2000, *Australian Training Review*, Oct/Nov/Dec 2000 no. 36 p. 9)

Technical assistance

Most online learners have experienced technical difficulties, whether it was infrequent login access, slow advancing technology, expensive hardware, or a range of other technical difficulties were experienced regularly.

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The top five expectations for technical support from both the survey and interview sample included:

1. Quick response to technical problems
2. Easy access to technical assistance
3. Provision of technical (IT) assistance throughout the course
4. Strategies for checking the accuracy/quality of information on the internet
5. Access to Frequently Asked Questions and Responses about technical issues

The study results found by Mason who noticed that Duke University MBA learners spent most of the first term 'getting up to speed with the technology'. This comment causes concern for the provision of adequate support for many VET learners who are isolated or are unfamiliar with technology.

For the interactive learner who relies on interaction with the teacher or peers, technical skills are necessary to fully communicate in order to pass the course. Without the technical skills necessary, they are basically helpless, with at least one author cautioning that learners drop out due to the excessive frustration caused by the technological ambiguities. Therefore readily available and high quality technical support is essential.

Teacher/Coordinator Interviews - Findings

Teachers/coordinators consider the most important learner support services to be: a helpdesk with IT support, access to communication with tutorial support, an induction program for students and access to learning resources.

The five services that teachers/coordinators see learners accessing most frequently are:

- **Support** - Diverse Off-line Flexible Learning supports *in support* of the Online program with facilitators being available 12.5 hours per day (0900-2100)
- **Communication**. Phone/email contact to be made available as part of the support mechanism and tutors to be in frequent contact with most learners
- **Resources** - External access to simulators and specialist resources, links to state networks using WebCT, lending services for learning resources
- **Helpdesk** for general assistance
- **Induction** processes - this to include skilling learners in IT literacy and Literacy prior to starting, self-assessment on readiness - so learners can operate different software like Windows and different platforms.

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Innovative Practices

The examples included in the table below provide an insight into practices that are being used in some of the institutions that were included in the study

Area	Innovative Practice
1. Resources inbuilt	➤ Resources are inbuilt into learning materials and extra resources available by links
2. Mentors	➤ Learners studying this agricultural course, have to have a workplace mentor or coach. Learners are also encouraged to use industry-related contacts as resources for their study eg bank managers, chemical companies etc
3. Induction mentor and personal support	➤ Mentors are assigned to learners - learners are in contact with an induction mentor to make them confident in using the software and to assist them generally
5. Compulsory workshop for practical skills	➤ This IT Support course requires learners attending a compulsory workshop for observation of practical skills ➤ Learners are required to attend online tutorials weekly and perform specific assessment tasks
6. Similar skills in same class	➤ In this Community Services and Health course, learners with similar skills are put in the one class and are on the one site to encourage interaction
7. Tutor monitoring	➤ The platform used in this College enables the tutor to tell how often the learners logon, what they do, what their participation was.
8. Administrative services	➤ Online flexible delivery has administrative support (for the department and as necessary online learners)

Guidelines for online support and intervention strategies

As a result of the learner feedback, the teacher/coordinator feedback and the literature search undertaken, the following guidelines have been developed. It is with some hesitation that this information is included due to the embryonic stage of online learning and the limited feedback that has been gained from online learners and practitioners for the study.

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Area	Dos
Pre-enrolment	<ul style="list-style-type: none"> ➤ Comprehensive accessible information available on enrolment, course content, the institution, and career options ➤ Information to be presented clearly and easy to navigate ➤ Information to be made available in a range of modes ➤ Constant and ready access to the course ➤ Contact persons to be available for clarification of enrolment and course queries by way email/phone/face to face ➤ An enrolling online webmaster to assist ➤ Info. on who to ask for help and how to seek help ➤ Info. on costs, what is required to complete the course, enrolment and security of personal details.

Teaching/Learning	<ul style="list-style-type: none"> ➤ Comprehensive induction/orientations programs ➤ Induction/orientation skills to include study skills, self awareness of learning styles etc and application of the study skills for these styles ➤ Induction/orientation to be available in a variety of modes ➤ Clear statements of what learners are to learn in the course ➤ Learners to be allocated a mentor/contact for the duration of the course ➤ Resources built into the learning material and also available in hard copy ➤ Learning materials to be presented clearly and comprehensively ➤ References to other resources and learning materials within the learning materials ➤ Information to be presented in manageable amounts ➤ Online exams and resource/course material mode available ➤ Timely and helpful feedback from teachers ➤ Consistency – same tutor, same contact details, consistent access ➤ Noticeboards, FAQ boards, chat rooms ➤ Reliability – of material, teachers ➤ Communication with <u>teachers</u> using a variety of ways, e.g. email, online chat, face to face ➤ Requirements for assessment to be clearly presented ➤ Provision of communication with teachers and other learners ➤ Opportunities to practice skills ➤ Provision of bulletin boards, telephone, fax and assessment strategies
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Technical support	<ul style="list-style-type: none"> ➤ Provision of technical (IT) assistance throughout the course to be available in a number of forms ie. telephone, fax and email (7 days x 24 hours) ➤ Helpdesk ➤ Response times to be stipulated for addressing technical problems
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	<ul style="list-style-type: none">➤ Easy access to technical assistance➤ Strategies for checking the accuracy/quality of information on the internet➤ Access to Frequently Asked Questions➤ Tips on downloading information, participating in discussion groups and a technical glossary➤ Guide to using email➤ Provision of net etiquette and referencing
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Issues for RTOs to consider

The key issues for RTOs to consider include:

- specific professional development for teachers/tutors who are involved in online delivery
- allocation of dedicated staff to support online learners so that they are able to provide rapid response to enquiries
- establishment of guidelines and directions for online learners and teachers/tutors and
- establishment of the roles and responsibilities of learners as well as teachers/tutors.

Conclusion

For online delivery to achieve the aim of creating flexibility and enhancing access to learning, it is essential that providers supply the same services to support online learners that are provided for traditional classroom learners.

Information technology as a tool for enhancing flexibility and delivery, has the potential to also cater for the needs of diverse groups of learners. Accordingly, providers are using the online systems in combination with other modes to meet these client needs. However, the precise nature of services that each provider offers to online learners is rarely shared, often due to information being commercial-in-confidence. No minimum requirements or standards seem to exist for providers to use as guidelines for online delivery. What each provider has, or is able to offer, to support learners depends on a number of factors including staff expertise with technology, finances, types and number of learners and learner-centred as opposed to traditional teacher-centered delivery.

The stakeholders involved in this study have strongly reinforced the necessity for a range of support strategies which need to start from the time the learner enrolls and these need to be made available for the duration of the learning cycle.

The transition from traditional classroom to online learning has the potential to be an anxiety inducing experience and for this reason many learners 'drop-out'. However, this risk can be minimised by adequately supporting learners, especially in the initial stages. Feedback from learners, teachers and research indicates that learners need to be well informed of the requirements of them as learners; of the course requirements; of the assessment requirements and for the content to be easily understood, consistently presented, and sufficiently detailed to enable them to become self-directed learners. They

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need to have ready access and efficient responses to IT support and academic support to alleviate frustration and to assist with time management.

Learners need to participate in a comprehensive induction/orientation program, which will address many of the issues they are likely to encounter in the early stages of their course. Many assumptions have been made about the skills that learners have, especially IT skills, literacy skills, access to resources and to IT. The literature focusing on online support indicates that there is a general consensus that learners need to be supported with access to the same services as traditional/classroom based learners. This support needs to start from the time the learner enquires about the course and whilst this support requirement usually declines over the time of the course, it needs to be available throughout the entire learning experience.

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EVALUATION FORM

What did you think of the format for the day?

Rate on a scale of 1-10 (1 being poor and 10 being excellent):

Comments:

.....

.....

What did you think of the usefulness of the information presented?

Rate on a scale of 1-10 (1 being poor and 10 being excellent):

Comments:

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What did you think of the overall quality of the presentations?

Rate on a scale of 1-10 (1 being poor and 10 being excellent):

Comments:

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.....

What were the 3 most useful aspects of the workshop for you?

1.
2.
3.

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How could we improve this and any future workshops or online learning?.....

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(This section is OPTIONAL)

Name:

Contact number: