

AUSTRALIAN *FLEXIBLE LEARNING* FRAMEWORK

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Managed by the Flexible Learning Advisory Group on behalf of all States and Territories in conjunction with ANTA

# 2002 RTO Case Study Project 'Flexible learning in practice'

## Canberra Institute of Technology



Developing staff skills in flexible learning

29 November 2002

## RTO Case Study Foreword

The following case study is one of 18 case studies that document using Australian Flexible Learning (AFL) Framework products and services by Registered Training Organisations (RTOs). The case studies are an initiative of the AFL Framework for the National Vocational Education and Training System 2000 – 2004 as a means of offering 'real-life' examples of how RTOs are implementing elearning strategies with the assistance of AFL Framework products and services. Each participating RTO has documented their experiences over a six month period (June 2002 to November 2002) and have been selected from each State and Territory representing the TAFE, Private Provider, Enterprise and VET in Schools sectors.

**Each case study will provide you with an insight into how RTOs are implementing flexible learning and is critical reading if:**

- You are interested in finding out about the possibilities of flexible learning
- You are currently implementing flexible learning within your organisation
- You are looking to extend your flexible learning delivery capabilities

**Each case study covers areas such as:**

- Implementing AFL Framework products and services
- Customising flexible learning products and services
- Change management practices
- Professional development
- Access and equity considerations
- Flexible learning strategic planning
- Blended learning techniques
- Marketing and much more.

Each case study highlights the various ways in which AFL Framework products and services can be applied to the learning environment to enhance client delivery and service.

For more information on AFL Framework products and services or to access other case studies visit [discover.flexiblelearning.net.au](http://discover.flexiblelearning.net.au) or phone 07 3234 1852.

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## Executive Summary

This case study describes how the Faculty of Business and Information Technology at Canberra Institute of Technology (CIT) used the following Australian Flexible Learning (AFL) Framework products and services to implement a flexible learning program:

1. Toolboxes
2. NET\*Working 2002
3. LearnScope
4. FlexWays
5. Flexible Delivery Business Planning Framework
6. Flexible Learning Leaders

To ensure the case study was successfully implemented, several different CIT groups joined to form the case study team. These included a number of “late adopters” in the Faculty of Business and Information Technology, and an internal small team of flexible learning experts (the Learning Innovation Support Team). This group undertook professional development while developing flexible learning materials and activities for their subjects to support program delivery.

### **AFL Products and Services**

The Flexible Learning Business Planning Framework provided a framework for a business case written to ensure future technical and pedagogical support for flexible learning at CIT.

The Flexible Learning Leaders project provided CIT with strategically positioned leaders who now support and promote flexible learning throughout the Institute. Members of the group also participated in NET\*Working 2002 which provided a wealth of new knowledge and connections for staff who are already engaged in flexible learning. The online conference also provided a springboard from which many novices were able to venture into flexible learning.

The use of all these products and services have been analysed and documented in this case study. The conclusions and lessons learned reinforce the importance of tailoring a layer of value to empower staff to use AFL Framework products and services effectively to create and offer sustainable flexible learning environments. Important features of this layer are professional development, technology support, resource customisation, and promotion of products and services.

## 1.0 Flexible learning background

### Organisation Overview

Canberra Institute of Technology (CIT) is the major provider of vocational education and training in the Australian Capital Territory. It is a client-focused organisation which seeks to ensure that student, industry and community needs are met through innovation, flexibility and accessibility.

It provides dynamic learning opportunities that challenge students to reach their full potential. It also provides appropriate opportunities for staff and students to develop and enhance their information literacy and communication technology skills to meet the needs of the knowledge society.

Flexible learning at CIT formally began in 1996 with the off-campus flexible learning centre was opened. Two years later, an on-campus flexible learning centre was opened in conjunction with the library at the main CIT campus at Reid. In addition to these two flexible learning centres, CIT offers a wide range of flexible learning options across all faculties.

### Innovative Learning Plan (ILP)

CIT's Flexible Learning Committee has developed a comprehensive Innovative Learning Plan (ILP) to contribute to the CIT Strategic Plan 2002 – 2004 and support its aims.

Staff are encouraged and supported to embrace new technology and pedagogy and efficiently use resources such as AFL Framework products and services to create quality flexible learning environments within a professional development framework. CIT particularly faces the challenge of how to 'mainstream' flexible learning across the organisation. The 'early innovators' are fully engaged in the implementation of flexible learning, but all staff including the 'late adopters' need to be assisted to engage in flexible learning.

### Objectives

The case study's objective was to document and summarise experiences of using AFL Framework products and services in the Faculty of Business and Information Technology. (NET\*Working 2002 was not only focussed on the Faculty of Business and Information Technology. CIT participants provided stories from across CIT. The Business and Information Technology Learning Innovation Support Team worked with the Teacher Education and Learning Solution Department to provide support prior to and during the conference.)

The case study also sought to document the support and resources needed for teachers and students to gain maximum benefit from AFL Framework products and services.

The case study also documents common issues which arose when using the AFL Framework products and services and the extent to which issues occurred. Lessons learned have assisted to update CIT's Innovative Learning Plan for 2003.

## **2.0 Getting started – Selecting the right AFL Framework products and services**

CIT has made extensive use of the AFL Framework's products and services. The main features of the chosen AFL Framework products and services and the reasons for selecting these are outlined below.

### **1. Toolboxes**

A Toolbox is a collection of online learning resources such as assignments, learning activities, case studies and reference material, all aligned to national competencies. They are highly visual and motivational and have well designed interfaces.

Toolboxes have been attractive to CIT for a number of reasons. They provide an opportunity for flexible learning environments to be created without the teacher developing the content from scratch. The materials also provide consistency and reduce development time.

The successful adoption of the Toolboxes has encouraged innovative practice as the simulated environment more closely represents real life situations. They also allow for self-directed learning. They can form the basis of flexible learning environments or be used within classroom delivery. Being able to extract and use a small chunk of a Toolbox and use it where it is appropriate is attractive, as CIT teachers can use the Toolboxes to suit the particular learning environment at hand, whether it be online, classroom or flexible mode.

For a teacher, the experience of reviewing a Toolbox and using it with students has provided CIT teachers with the opportunity to learn a new teaching/learning style. It also provides them with a way of experiencing the online environment without having to develop huge amount of content.

### **2. NET\*Working 2002**

NET\*Working 2002 was a two week online conference which allowed a range of people to network online about flexible learning. It provided access to and participation in presentations by flexible learning experts. It was also an opportunity to showcase and share experiences of recent innovations and initiatives in pedagogy and technology.

The conference contributed to creating a vision for staff new to information technology but also provided valuable information for more experienced staff.

### **3. LearnScope**

LearnScope provides a range of opportunities for Vocational Education and Training (VET) practitioners to develop skills, understandings and capabilities in the application of new technologies for teaching and learning.

CIT has had several LearnScope projects during the last three years. LearnScope provided CIT with a unique opportunity to bring teachers from different faculties together to target specific aspects of the Innovative Learning Plan. The collaboration within the action learning framework allowed participants to share their perspectives and create a broader and more holistic view of the issues at hand. Input from outside experts and the involvement with the LearnScope Virtual Learning Community (VLC) enabled participants to gain a national perspective and more informed view of flexible learning issues.

The Faculty of Business and Information Technology used a 2002 LearnScope project to develop the skills of novice teachers in how best to use the online information technology environment. The project particularly sought to learn how best to engage new learners in developing online learning materials through an action learning approach. LearnScope brought together teachers from multiple disciplines. The diverse perspectives and experiences of the team contributed to developing a rich shared vision. It also allowed the team to collaborate and critically reflect on current teaching practice in the Faculty of Business and Information Technology.

#### **4. FlexWays**

FlexWays is an interactive online product, which allows people who are learning about flexible learning to plan their professional development.

It provided CIT with a formal mechanism for planning professional development. This was attractive to CIT as online learning required a new type of teaching – one not covered in less recent teacher training programs. It is most important that CIT teachers plan and access professional development as they embrace flexible and online learning.

#### **5. Flexible Delivery Business Planning Framework**

The Flexible Delivery Business Planning Framework aims to support sustainable development of flexible delivery. It helps users address the issues and challenges in growing the viability and credibility of flexible delivery.

This AFL Framework product was used by CIT to develop a business case for funding for a further stage of online learning at CIT. It provided a very helpful checklist of items that should be included in such a business case.

#### **6. Flexible Learning Leaders**

Flexible Learning Leaders is the professional development program that provides development opportunities for VET managers, leaders or champions to increase their effectiveness in implementing flexible learning.

The Flexible Learning Leaders program allowed the faculty to have a flexible learning expert who managed and /or advised flexible learning projects and initiatives. This increased the quality of flexible learning and was very attractive to CIT.

### 3.0 Putting flexible learning into practice with AFL Framework products and services

The Learning Innovation Support Team (LIST) provided support to the Faculty of Business and Information Technology staff who were developing flexible and online learning. LIST has developed an approach to this support which provides a pathway for professional development for these teachers (refer to *Appendix A Pathways for Professional Development* for more details). During the case study, this approach underpinned the LearnScope project, the use of FlexWays and the implementation of Toolboxes.

#### 1. Toolboxes

CIT selected five Toolboxes for this case study: Retail Management, Library and Information Services, Systems Analysis and Design, Tourism and Hospitality and Office Administration.

The following briefly describes how CIT used these Toolboxes:

- The Retail Management Toolbox has been designed and used for Certificate 3 and 4 students.
- The Tourism and Hospitality Toolbox has been used for tourism and hospitality students undertaking budgeting subjects.
- The Office Administration Toolbox has been made available to students enrolled in the Diploma of Business Administration as an additional resource.
- The Systems Analysis Toolbox has been used to deliver a range of systems analysis and design, project management and quality competencies.
- The Library and Information Services Toolbox has been used as adding activities to the delivery of Certificate subjects.

All these Toolboxes were uploaded to the CIT server and were made available to students and teachers. This enabled easy access to the Toolbox over the internet from home or work. The single copy of the Toolbox on one server also means that any modifications required need only be made in one place.

In addition to being uploaded to the CIT server, the budgeting section of the Tourism and Hospitality Toolbox was copied to computers in the CIT Reid Campus Flexible Learning Centre. It was also given to students on floppy disk so they could easily access it from home or work.

Using the Toolboxes enabled classroom mode subjects to be offered more flexibly. For example, the Retail Toolbox enabled a class to be run with a small number of students and face to face sessions were only being run every three weeks. The Systems Analysis and Design Toolbox was used and supported by a mix of tutorials, online activities and group projects. This allowed students who travelled interstate to still be able to participate in the subject and to continue interacting with other students.

In all the Toolboxes offered, teachers reported that students were able to work at their own pace and were able to review topics covered previously at their leisure and thereby provided an efficient way to revise. Teachers using the Systems Analysis and Design and Retail Toolboxes described how students gained benefit when the whole Toolbox was made available as an additional resource and students were free to explore parts of it outside their required learning path.

All teachers reported that the visual interactive interfaces presented in the Toolboxes were highly motivating. In most Toolboxes, students engage with drag and drop online activities which they found highly motivational. Content is presented in unusual and interesting ways.

Teachers who implemented the Systems Analysis and Design Toolbox initially held weekly meetings to work out how to best use the Toolbox with students. Teachers participated in creating a learning pathway for students.

All the teachers using Toolboxes reported how the Toolboxes provided more real life learning environments which enabled students to adopt workplace-like roles as part of their learning.

The Toolboxes have enabled teachers to become inspired about online teaching. For example, one Systems Analysis and Design teacher had initially been quite sceptical about online learning but now is one of the most enthusiastic proponents. Another teacher who preferred to teach by lecture mode uploaded PowerPoint slides as additional resources and so began to integrate his teaching style with the online environment. In this way the teachers were able to own the learning environment, using the best features of the Toolboxes, but personalising the resource to the students.

In some cases, only small parts of the Toolboxes were used. For example, the budgeting section of the Hospitality Toolbox was extracted and used for flexible students. The content matched subject expectations and the Toolbox contained formative and summative assessment. Therefore, it was not required to be customised extensively.

The meetings section of the Office Administration Toolbox was applauded by teachers and used within subjects delivered in the flexible learning centres. This has always been a difficult topic to teach in classroom delivery and the Toolbox provided a rich environment in which meeting procedure can be fully explained.

Also, the use of a Toolbox has not been restricted to teachers in the discipline areas covered by a Toolbox. For example, Business Development teachers are currently investigating the bibliographic flash exercise and associated content in the Library and Information Services Toolbox to use with their management students who are required to write research reports with bibliographies.

In several teaching areas, Toolboxes have been used where there are large numbers of students enrolled in multiple classes. The Toolboxes have ensured that students get the same learning materials, overcoming a problem of consistency of teaching previously experienced with multiple classes.

## 2. NET\*Working 2002

Over 80 CIT staff asked to participate in NET\*Working 2002. This was a huge increase in numbers since the last online conference NET\*Working 2000. This highlighted the increased interest in online learning within CIT over the last two years.

The Teacher Education and Learning Solution Department supported participants with input from the Learning Innovation Support Team.

Face-to-face induction sessions were held over three campuses the week before the conference started. A daily newsletter was emailed to participants with information about good sessions and how to overcome technical difficulties. A reflection and sharing session was held as a follow up when the conference finished.

Several online interest groups were set up by CIT staff, about topics that were interesting to them and their work. Staff appreciated being able to start online discussions with colleagues and share common interests with others at CIT.

One particularly successful group was set up by the Teacher Education and Learning Solutions Department specifically for CIT participants and was called [CIT@Networking2002](#). CIT staff were encouraged to participate in this group. Some staff with little experience of the online environment were more comfortable posting to this CIT specific discussion than in the wider discussions. One non-CIT participant commented:

*"I was impressed by the CIT contribution. It was good to see your colleagues online and involved."*

Many teachers reported enjoying this communication as it was welcoming and interesting. Some participants invited guest speakers to participate as well and a cross Tasman conversations evolved.

New dialogs emerged between CIT staff. One participant stated:

*"I posted messages to Andrew and Deb Bowman and Janice Anderson and looked at their work. I felt motivated when they replied so quickly and it made me realise that you can start teaching online by doing a small part and building on it."*

Several participants appreciated the size of the conference and access to the large amounts of information. One comment was:

*"Biggest in the southern hemisphere, and all interlinked."*

Another participant reported the following: *"I found great information that was relevant and pertinent to my work. Also avenues to International web sites. I subscribed to many newsletters and visited research sites."*

Many participants appreciated being able to communicate and ask questions with experts. One participant communicated with Dr. Sivasailam "Thiagi" Thiagarajan who had visited CIT earlier in the year: *"It was good to exchange ideas, experiences and resources."*

The conference provided new vision for teaching and learning in the online environment that was not text based. Interactive crosswords, online mind maps, email games were cited by participants as being especially inspirational. One participant was energised by conference presenters who gave the view that online learning can be so much more than text based dialog.

*“I saw a more visual non linear view which was not text based. This prompted me to start developing an online course with a metaphor of a building and includes quizzes, scanned photos, games, and audio.”*

Participants appreciated seeing what interstate and international colleagues were doing and also being able to explore themes they would not have generally participated in: *“I communicated with people in Adelaide and Darwin who were also using the Tourism and Hospitality Toolbox.”*

Participants reported enjoying the social side of the conference, particularly the humorous element:

*“It was illuminating and thoroughly enjoyable.”*

Several participants reported contributing software, perspectives and tips based on their experiences. One participant commented:

*“I felt that I had something to contribute because I had participated in online communities before. I could contribute and learn at the same time. Lurking is great for people until they are comfortable enough to post.”*

There was a general consensus that participants would have a better experience if they posted messages:

*“It was better to join in, prioritise and give positives.”*

Several expert users stated they had objectives for using the conference before it started and went straight to topics that they knew would help them with their work. Examples stated were Knowledge Management, Mentoring, Online facilitation courses set up as samples, Product Resource Generator, Web logs, Learning Objects and SCORM.

Novice users in general were less specific about their goals and more appreciative of features that made the environment more friendly such as the face-to-face induction session held before the conference, the [CIT@NetWorking](#) interest group, the comic characters and the instant messaging.

Participants indicated some advantages of an online conference over a face-to-face conference. These included being able to jump into sessions and jump out quickly if they didn't interest you, and asking questions in an asynchronous discussion as opposed to a face-to-face session.

### **3. LearnScope**

The Faculty of Business and Information Technology LearnScope project was specifically designed to respond to changes within the faculty that had occurred in online learning throughout 2001 where many teachers had become involved with WebCT on a variety of levels. More than 20 teachers had developed online projects and were using these with their students. An additional 30 teachers were using WebCT with their students in some form, mostly as a resource portal and to support flexible learning students.

The time was ripe to take the next step and gather both WebCT and teaching experience and to make in-roads in using online activities to create meaningful experiences. At the same time there was a clear need to make this process easy with a carefully staged pathway.

The BIT LearnScope project was therefore designed to allow teachers to convert a small amount of content, such as an assignment or part of a lesson, to an online activity.

The step-by-step, concrete approach is especially suitable for teachers who are new to online learning but who have teaching experience. The workshops incorporated factors essential for successfully supporting teachers to reflect on their current practice and change their teaching style. These were hands on workshops and full instruction was given for technical skills. The aim was that at the end of the project, each teacher would have an up and running activity on WebCT to use with students. The emphasis was on choosing an activity, which would add quality to the learning environment, and also reduce teacher workloads.

Four face-to-face sessions and three online sessions were conducted throughout the semester. Seven teachers in the Faculty of Business and Information Technology became the BIT LearnScope team at the start of Semester 2. The teachers covered a diverse range of teaching areas: two taught software development, one taught management, two taught business admin, one taught information technology and one taught both flexible learning IT subjects and software development.

The teaching experience within the group ranged from some teachers having more than 20 years experience and others coming recently from industry with less experience but other skills and knowledge to offer such as technical skills and distance education learning.

Each teacher designed a project and shared the aim with the group. Discussion and valuable feedback was given in a safe environment which enabled each teacher to refine and rethink their objectives.

More specifically, the LearnScope participants aimed to:

1. create a completed online activity ready to use with students,
2. experiment with different ways of including online crossword puzzles, video and audio snippets, web quests, Internet research exercises and email games in the online environment,
3. develop a broader view of possible online learning experiences,
4. improve online technical skills,
5. rethink classroom mode practice in a non-threatening environment, and
6. learn about online learning basics such as instructional design, student support, and learning needs in context.

One teacher in the LearnScope project commented:

*“One of the best things about the LearnScope project was being able to extend yourself beyond the norm and learning from others experiences.”*

The activities developed showed a new sophistication. For example, two teachers worked together to design a more motivating interface for flexible students which was not text based. Two projects used interactive crosswords for students to revise topics in a more energising way. Another project adapted a JavaScript hangman game into a revision exercise for Java students. A project for a marketing subject required students to gather information from various websites, before sorting, rearranging and publishing the information to WebCT.

#### **4. FlexWays and the Virtual Learning Community**

As interest in online environment has grown, professional development needs have also increased with more demand for sessions which address teaching and learning

such as using WebCT, using WebQuests, using internet sites for teaching and learning, WebCT quizzes and online research assignments for students.

The need to plan professional development is paramount. A special workshop on “Identifying and Gaining skills for flexible learning” was run to assist teachers to gain skills they needed to effectively implement flexible learning. The workshop focussed on using two of the AFL Framework products and services – FlexWays and the Virtual Learning Community (VLC). FlexWays provided an opportunity to engage with and plan professional development and the VLC offered a wealth of resources related to the plan.

All of the participants found FlexWays easy to use and most found the VLC site easy to use. Participants responded positively about both AFL Framework products and services, with comments such as:

*“We identified many skills and accessed useful web resources for ongoing professional development.”*

*“LearnScope is a well structured site with good introduction/explanatory material and appropriate links.”*

Participants also found the “How To” and “Articles” sections of the VLC site particularly useful.

## **5. Flexible Delivery Business Planning Framework**

In early 2001, CIT received \$750,000 funding from the ACT Government to develop its virtual campus. While development had already started on its comprehensive online learning platform, the money provided a substantial boost to the implementation of online learning. It funded setting up of a help desk, providing technical and pedagogical support and professional development, and implementing a large number of discipline specific implementation projects.

The funding ceased in June 2002 and by re-adjusting priorities, the help desk and the technical and pedagogical support have been able to continue until the end of 2002.

This has demonstrated that a help desk and providing technical and pedagogical support is critical to successfully implementing online learning across an organisation like CIT. For this to continue in 2003, the funding needed to be provided through the normal CIT budget process.

A small group of CIT staff prepared a business case to seek funding for the help desk and the technical and pedagogical support. The business case section of the Flexible Delivery Business Planning Framework was used as a guide to develop CIT’s business case. Although there were several other sections in the Flexible Delivery Business Planning Framework tool, it was the business case section that was the most valuable.

The CIT business case included a section on market assessment, which was developed after working through questions identified on page 15 and 19 within the Flexible Delivery Business Planning Framework. The CIT business case also included a section on capability assessment, which was developed after working through the ‘provider capability’ section on page 21 of the Flexible Delivery Business Planning Framework. The sub-headings of people, management systems, IT infrastructure and marketing reflect the sub-sections in the ‘provider capability’ section.

The CIT business case also contained sections on benefits, return on investment and risk management strategy, using questions from the 'Benefits and Risk Assessment' section of the Flexible Delivery Business Planning Framework.

The major benefit of using this AFL Framework product has been to produce a comprehensive and better argued business case. This quality of case would not have been possible if the tool had not been available. This product is strongly recommended to anyone developing a business case for implementing online or flexible learning.

## **6. Flexible Learning Leaders**

Elizabeth McPherson was the Faculty's Flexible Learning Leader (FLL) in 2000. This provided her with an opportunity to learn more about online methodologies and pedagogical approaches. Elizabeth's FLL project aims directly linked with the planning and implementation of new directions for the Faculty. It investigated providing learner support in flexible learning situations and encouraging staff to become involved with flexible and online learning.

As a direct result being involved in the Flexible Learning Leaders project, the Learning Innovation Support Team (LIST) was set up within the Faculty at the beginning of 2001 to:

- identify, develop and maintain quality learning resources
- manage the educational aspects of the Faculty programs offered through two Flexible Learning Centres
- conduct professional development related to learning resource development
- research and provide advice on teaching and learning strategies, e.g. best practice for self-paced learning
- secure funding for learning resource development.

Over the last two years, LIST has improved and standardised Flexible Learning Centre procedures, and greatly increased the number of teachers in the Faculty who are implementing online learning. Much of its effort has involved supporting teachers to undertake a series of innovative projects by providing time release, project management, one-to-one mentoring and other support as required. This enabled teachers to learn new skills while developing subject resources and activities in WebCT.

LIST has also organised a series of showcases where completed projects are demonstrated and discussed, resulting in enthusiasm among faculty staff who can see from their colleagues' projects how it may be possible for them to use online technologies.

Since Elizabeth McPherson was selected as a leader, she has been promoted to Deputy Dean of the Faculty, but continues to be involved in implementing flexible learning for the Faculty.

During 2002, Elizabeth has continued to influence and manage teacher-takeup of flexible learning by:

- convening committees that share good practice in flexible learning, and advise the Faculty on policy, procedures and future directions for flexible and online learning.
- producing a national VET Policy Advice 2002 project report on measuring teacher time in flexible learning. A series of focus groups and individual

consultations with CIT staff provided input and feedback on this issue. It is anticipated that the project outcomes - a set of principles, guideline, and tips on managing workloads and some sample teacher stories will be directly useful for staff in flexible learning situations at CIT and elsewhere. CIT plans to trial using the Guidelines in 2003. It is hoped that this new approach to teachers' work in flexible learning will help move flexible learning closer to a mainstream activity by overcoming some of the time and workload barriers that teachers perceive are associated with flexible learning.

- convening the Canberra WebCT User Group, where good ideas and best practice can be shared across the ACT.

## 4.0 How to get the most out of AFL Framework products and services

CIT found the AFL Framework products and services to be extremely beneficial. Following are some tips on how CIT benefited. Some suggestions are common to several products and these are outlined as general principles. Tips specific to each of the AFL Framework products and services follow.

### 1. Technology Issues

When implementing most of the AFL Framework products and services, people will frequently confront problems with their lack of knowledge of technology. In general, it is useful to create the situation where staff can use the AFL Framework products and services without being overwhelmed by the technology. Technology is off-putting to some staff particularly novice computer users.

To reduce technology barriers, try the following:

- **Focus on pedagogy not technology**  
Focus on the pedagogy and vision, as this motivates staff to continue, especially novice computer users who may be deterred by the perception that sophisticated technical skills may be required.
- **Step-by-step instructions**  
Provide step-by-step instructions to learn technical skills required to implement the AFL Framework products and services.
- **Technical support**  
Provide efficient technical support for tasks that are outside of reasonable staff use, for example, installing Toolboxes on the server and downloading online conference software.

While teachers using Toolboxes suggested that they should not be making changes to the Toolbox contents, there were instances where minor changes were required and technical support was necessary. For example, the Library and Information Toolbox contained some interactive routines, but not enough for the students. The teacher simply added a few more.

Once you implement the product and service, support may be required. A teacher who implemented the Library and Information Toolbox comments: "*I need to be able to phone or email a technical question*". In this case, the teacher had sound technical and pedagogical skills but needed adhoc technical support to solve problems.

## 2. Professional development and educational support

Educational support was provided for the staff when using the AFL Framework products and services so that teachers were able to effectively apply the products and services in their teaching.

CIT found it important to:

- Analyse the situation and create a professional development pathway for using the product and service. This involved:
  - developing the teacher profile,
  - determining the aim of using the resource,
  - analysing technical skills and requirements,
  - analysing the product and service in pedagogical terms and designing the program considering these.
- Select an appropriate strategy for implementing the professional development, for example, one-to-one mentoring, action learning or small group collaboration.

## 3. Adopt a new paradigm for teaching and learning.

In some cases, using AFL Framework products and services resulted in more flexible delivery approaches and this required teachers committed to adopting a new teaching and learning paradigm. In this situation, it was important to:

- **Allow reflection and critique**  
Provide space for reflection and critique on current practice in a supportive environment and work out how best online teaching resources such as the Toolboxes can be used with students.  
One teacher commented: *“Find a mentor or support person who you feel comfortable enough to ask questions.”*
- **Show a new vision**  
Provide space to promote and uphold the new vision by exposure to good examples of online learning. Also allow space for collaboration and discussion of common problems and how they can be solved.  
One participant described: *“the best thing about the project as extending your self beyond the norm and learning from others experiences.”*  
Another participant says: *“The best things were discovering issues relating to online from participants with varying levels of knowledge and experience.”*
- **Share ideas and experiences**  
Teachers get a lot out of sharing their ideas and experiences with each other. It worked particularly well with the LearnScope group as they had considerable teaching experience over a range of disciplines.

One participant stated how other participants contributed to her learning: *“Sharing our project aims and experiences has been the best bit – i.e. pulling and pushing one another along.”*

Another participant stated: *“Sharing with other teachers has broadened my knowledge and experience. It was motivating to receive feedback on what has been done and what could be done.”*

## 4. Toolboxes

When using Toolboxes to assist with creating flexible learning environments, it is

important to:

- **Allocate time to review content**  
Reviewing the Toolbox and matching the content to subject requirements, as well as finding time to do this is essential for implementing the Toolbox. This has the additional benefit of the teacher interacting with the Toolbox and getting to know the possibilities of the online environment.
- **Provide training in moderation discussions**  
Teachers using Systems Analysis and Design, Library and Information Systems and Tourism and Hospitality Toolboxes also facilitated online discussion to support some of the Toolbox activities. Increased educational value was achieved where teachers have training in the pedagogical and technical aspects of online moderating.
- **Build in a requirement for students to access the Toolboxes**  
Maximum use of the Toolbox was achieved where students were required to use the Toolbox. For example, a teacher replaced a lesson with a Toolbox activity and required students to go online to complete the activity.
- **Find ways for teachers to own Toolboxes**  
Look for ways for teachers to contribute their resources or experiences as this creates a sense of ownership and engagement and results in a more meaningful experience.

In introducing the Systems Analysis and Design Toolbox, *“Teachers were encouraged to upload their own resources such as PowerPoint slides in addition to the Toolbox resources.”*

- **Provide easy pathways for using Toolboxes**  
The use of Toolboxes ranged considerably from using the complete Toolboxes for flexible or online subjects and to using a small part to complement classroom delivery. Staff doing the former described requiring a wide range of online teaching skills including instructional design, creating and moderating discussions, supporting students and technical tasks in order to create a quality learning experience. However, it is also possible to use a small section of a Toolbox, requiring less skills from the teacher. Janice Wain the ACT Toolbox champion advises: *“You do not need to necessarily use the whole Toolbox, just link to the activity or section you need and make the remainder of the Toolbox available as a reference.”*

When using the Toolboxes, it is important to establish the teacher’s technical skills and online learning experience and provide professional development and support appropriate to the level of expertise required by the Toolbox.

- **Provide rigorous student support**  
Make sure students can log in and access the Toolbox. This is especially important for subjects where students do not usually use computers and subjects not usually taught in computer laboratories. Run face-to-face induction sessions and provide step-by-step instructions for students on accessing the Toolbox. Provide ongoing support in the form of drop in sessions and help desk phone numbers so students can sort out technology problems as they arise.

- **Find ways to energise and track students**  
For students who use Toolboxes as part of a blended learning or flexible environment, it is important that mechanisms for keeping the students motivated and on track are in place. For example, Retail Management students were required to attend face-to-face tutorials every three weeks.
- **Support from management**  
Teachers reported that support and encouragement from their supervisors especially in terms of being given enough teaching hours to teach in a flexible mode and also for time release for professional development was essential for successful implementation of the Toolboxes.

#### **5. Participating in online conferences**

Information gathered from a cross-section of conference participants emphasised several important points when accessing online events such as NET\*Working 2002:

- **Have the confidence to participate**  
Face-to-face induction sessions, small friendly online interest groups, and quick responses to messages all contribute to creating the environment so people can post messages. There is a need to overcome the feeling “*that people already know each other and I was an outsider.*”
- **Schedule your time**  
Participants who extracted themselves from usual duties and scheduled time specifically for the conference reported greater satisfaction.
- **Start participating early**  
Participants who delayed logging on until the second day or second week were confronted with huge amounts of discussion posts and reported that it was difficult to join midway through a discussion.

#### **6. Flexible Learning Leaders**

The Flexible Learning Leaders program provides an opportunity for an organisation to develop a staff member with an active interest in flexible learning, into a position of leadership.

For an organisation to reap maximum benefits from the Flexible Learning Leaders project it is important for:

- The leaders project to be planned so that its outcomes are relevant and beneficial to the organisation.
- The leader to be released from normal duties for a period to focus on their professional development.
- The leader to be placed in a position of influence at the end of the program.

## 5.0 Conclusion

This case study has provided CIT with an opportunity to explore and document how using a range of AFL Framework products and services has assisted the Faculty of Business and Information Technology at CIT to improve and increase its adoption of flexible learning.

The case study team have examined their use of AFL Framework products and services and identified the main themes from this experience.

The major findings of this case study are that:

- AFL Framework products and services can be used in a variety of ways to support organisations create and offer flexible learning environments. This may involve a changing paradigm for teaching and learning. It is important that organisations consider empowering staff to use AFL Framework products and services effectively if their efforts are to be sustainable.
- Toolboxes contain many resources that are attractive to teachers, including reference material, online interactive motivational exercises, case studies and simulations that allow students to take on more real life roles while they are learning. Most Toolboxes provide learning resources which cater for a range of learning styles and allow self directed learning. Using a Toolbox can provide basic content for flexible learning environments without teachers spending huge amounts of time on content development.
- Professional development is an essential part of adopting AFL Framework products and services. Implementing flexible learning can require teachers to learn a wide range of skills from technology skills to moderating discussion postings. Teachers whose teacher training occurred before the recent growth of flexible learning may not have encountered these skills.

A number of models can be used ranging from independent adoption, action learning, mentoring and small group activity based. The actual model chosen will depend on the subject matter, the product and resource and the skills and knowledge of the teachers. Action learning and collaborative activity groups can provide an effective mechanism for adopting AFL Framework products and services.

- AFL Framework products such as FlexWays and the Flexible Delivery Business Planning Framework can be used in smart ways to foster and support flexible learning. For example, FlexWays was used to plan professional development for teachers and was also used to create a checklist of online skills for evaluation in CIT's LearnScope project.
- Good technology support for teachers and learners is essential to successfully adopt the AFL Framework products and services especially the Toolboxes, NET\*Working 2002, and FlexWays.
- Obtaining maximum advantage from NET\*Working 2002 requires an organisation to plan, run induction sessions, schedule time and provide opportunities to meet and post messages in a friendly environment. A co-ordinated effort in facilitating support produced clear direction for participants.

CIT's involvement in this case study has reinforced the importance of tailoring support to individual staff members. This may include professional development, technology support, resource customisation and promotion of AFL Framework products and services. It is also emphasised the importance of providing multiple pathways through this support layer so that individual needs are met, with special consideration for late adopters.

## **Appendix A Pathways for professional development**

### **APPENDIX A Pathways for Professional development**

The aim is to create a suitable pathway for the teacher to use the resource and make best use of the support available in an efficient way.

#### **1. Develop a teacher profile**

Develop a teacher profile to identify level of pedagogy and technical skills. Flex ways and or online skills checklists can be used to do this.

#### **2. Determine the aim of using the products or resource**

Determine the aim of using the product or resource considering the nature of the subject matter, a typical student profile and the delivery mode for example classroom, flexible or online.

#### **3. Analyse technical requirements**

Analyse the skills needed by the teachers to use the AFL Framework products and services.

#### **4. Analyse the product and resource in pedagogical terms**

Determine the extent of suitable resources in the product or service and other resources available which support it. Determine what sort of additional resources or activities are required to meet the aim identified in 2.

#### **5. Design a professional development program**

Design a professional development program for the teacher, or support the teacher to design his or her program, based on the information gained in 1, 2, 3 and 4.

Consider the following models presented in this case study:

#### **Action Learning model**

The Action Learning model was adapted for the BIT LearnScope project for the face-to-face component. The traditional model was adapted to have each teacher taking a turn at being the stakeholder and this enabled feedback to be given to each teacher on their project.

#### **One-to-one support**

One-to-one training is where a support person and teacher work together. It is effective in situations such as a teacher having only basic computer skills, when there are a diverse range of tasks, when a teacher cannot attend face-to-face sessions or when a teacher is outside of their comfort zone. One-to-one support is given to teachers when they develop online projects if required.

#### **Mentoring model**

The mentoring model is where one teacher who already has the required skills works with a novice user. It is effective when there are strong bonds and good communication between colleagues. It was used within one Department within the Faculty of Business and Information Technology when there were good working relationships between the mentor and the novice. The mentor had expert skills and also was familiar with the subject matter.

#### **Small group activity focused model**

This is a collaborative group of teachers working together for a common goal. It was

used to adopt the Systems and Analysis Toolbox and was effective in breaking down resistance to the Toolbox and creating a shared vision of a new paradigm for teaching and learning. It needs regular meetings or communication points for the communication to occur.

### **Independent model**

Some teachers are able to and prefer to work alone and ask for help on a “just in time basis’. This model was used when a teacher used a small part of a Toolbox for students. It was effective as the teacher had most of the technical skills required to make the Toolbox web pages available on disk. The content was holistic and everything the teacher needed was available including assessment, exercises, motivational interactions and reference material.

Some considerations include:

- How can the teacher become self-actualised and use the resource or service independently.
- Is there a need to adopt a new perspective or create a shared vision? If so create space for collaboration and critical thinking on current practice preferably in a concrete way. Action learning may be suitable.

### **6. Provide Ongoing Support**

Identify the appropriate level of support required by the teacher. For a teacher with a high level of technical skills, this may be as simple as providing access to a technical help desk. For a novice teacher, a more planned and staged support such as a mentor, activity based small group or action learning group may be more appropriate.

### **Other considerations**

- **Establish need for researcher or instructional designer**  
Provide instructional designers, researchers and tutoring to teachers where necessary. This will avoid the situation where teachers are being inefficient because they are not able to use the technology to its best.
- **Provide technical support**  
Provide technical support such as installing a Toolbox, extracting parts of a Toolbox and making these available, or download software for an online conference.
- **Save re-inventing the wheel**  
Publish, promote examples, tips and tricks that teachers have learned to save re-inventing the wheel.