

## Virtual Training For Virtual Clients

Leanne Cummings  
Manager, Library Services  
Queensland Police Service  
[cummings.leanne@police.qld.gov.au](mailto:cummings.leanne@police.qld.gov.au)

### **Abstract:**

*The Queensland Police Service (QPS) Library provides information services to over 10,000 personnel stationed throughout Queensland. Eighty five percent of these clients are considered remote, and are unable to physically access one of the three QPS libraries. The Virtual Library (VL) database was implemented in 1997 to enable clients to access, search and retrieve information resources from any QPS computer, regardless of their location or roster commitments. Clients were provided with an equitable and effective library service which was available 24 hours, every day. However, client demographics continued to hinder the delivery of equitable and cost-effective library literacy training. To overcome this challenge, a Computer-Based Training (CBT) program was developed for the VL. The VL CBT is an online tutorial that aims to teach clients in using the VL. Available from any QPS computer, 24 hours a day, the VL CBT has proven to be a highly successful resource. It has provided the best solution in delivering equitable and economic library training to a large client base, consisting mostly of remote clients.*

## **Introduction**

The Queensland Police Service (QPS) Library provides information resources to over 10,000 personnel throughout Queensland, including those based in remote regions such as Thursday Island. With 85% of library clients considered remote or distant, the biggest challenge facing Library Services has been overcoming geographical barriers that hinder the delivery of equitable and economical library training programs.

The Virtual Library (VL) is an online catalogue that provides access to over 30,000 items including electronic journals, commercial databases and various in-house online services. Available on the QPS Intranet, clients can access the VL from any networked QPS computer from anywhere within the State. The VL has been an effective vehicle in delivering equitable information resources to QPS personnel, however the delivery of statewide library literacy programs remained an ongoing challenge.

With this challenge in mind, Library Services has developed a Computer-Based Training (CBT) program for the VL which is available to all QPS personnel irrespective of their work location. The program is a self-paced online tutorial that aims to teach QPS personnel how to effectively utilise the library catalogue and its associated services.

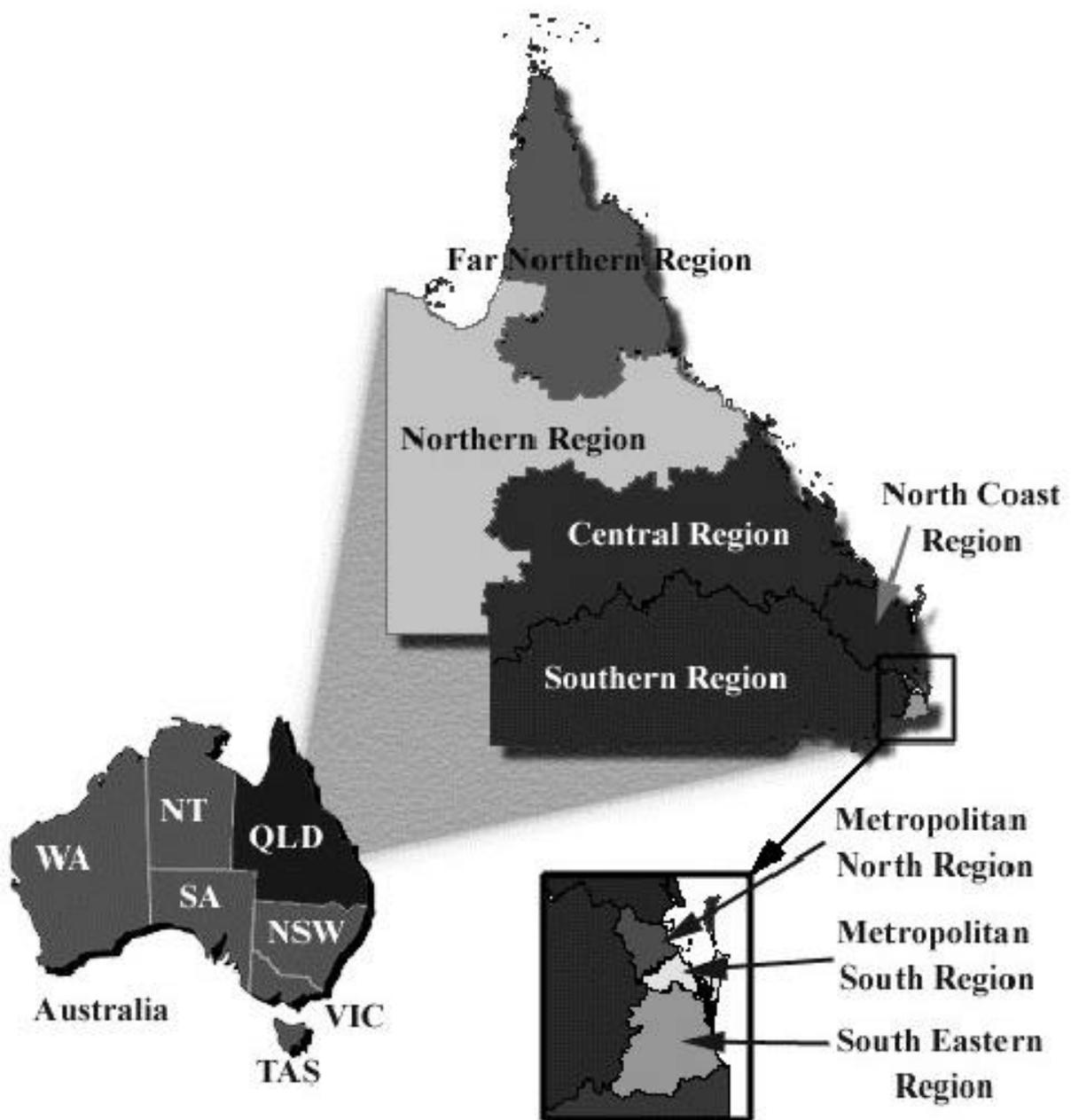
This paper will discuss the development and implementation of the Virtual Library CBT; its purpose; targeted learning outcomes; client profiles and demographics; format; content; information technology requirements and challenges; as well as highlight the disadvantages and advantages that the CBT offers over more traditional delivery methods.

## **About the Queensland Police Service (QPS)**

The Mission of the QPS is ‘to serve the people of Queensland by protecting life and property, preserving peace and safety, preventing crime and upholding the law in a manner which has regard for the public good and the rights of the individual’(Queensland Police Service, 2000).

Illustrated in Figure 1, the QPS is a large organisation that consists of approximately 10,607 personnel (7700 police officers; 2139 public servants and 768 general employees) spread across 8 police regions, 25 districts and 332 police stations (figure includes police beats and police beat shopfronts). In fact, “Queensland has an area of 1,732,700 square kilometres (including islands), equivalent to more than seven times the area of the United Kingdom, three times the area of France or one-fifth of the area of the USA with 9,800 kilometres of coastline (including islands) and 7,400 kilometres of coastline on the mainland” (Queensland Police Service 2001). These impressive statistics presented a challenge to Library Services to develop a statewide training program that could be delivered to all QPS personnel in an equitable and economical manner.

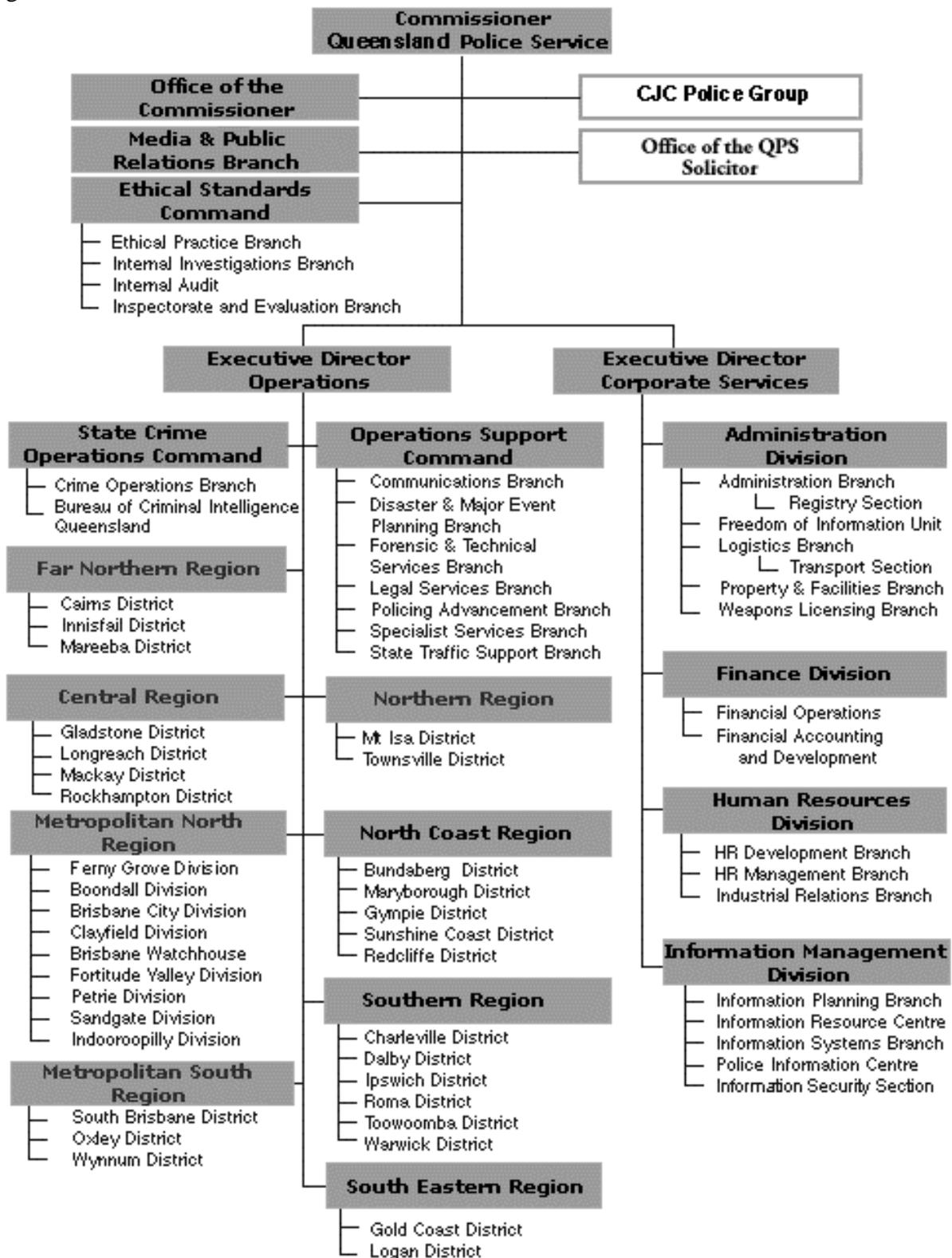
**Figure 1. Queensland Police Service Regions**



Combined with a large number of personnel spread across a vast area, the QPS consists of multi-disciplinary squads and sections that specialise in various fields such as:

- Accident Investigation Squad
- Bicycle Patrols
- Breath Analysis State Support
- Dog Squad
- Water Police
- Forensic & Technical Services Branch
- Juvenile Aid Bureau
- Public Safety Response Team
- Railway Squad
- Special Emergency Response Team
- State Traffic Task Force
- Weapons Licensing Branch
- Legal Services Branch
- Mounted Police

The diversity and extent of the organisation can best be represented in the following organisational chart.



The QPS is a dynamic and constantly evolving organisation in which timely and cost-effective access to, and dissemination of, accurate information is paramount to police personnel in undertaking their roles. The VL is regarded as a silo of information which supports the

operational and vocational requirements of QPS personnel. Considering the nature of the organisation and the importance of accurate and timely information, it is imperative that personnel are equipped with the knowledge and skills to effectively and independently utilise the VL.

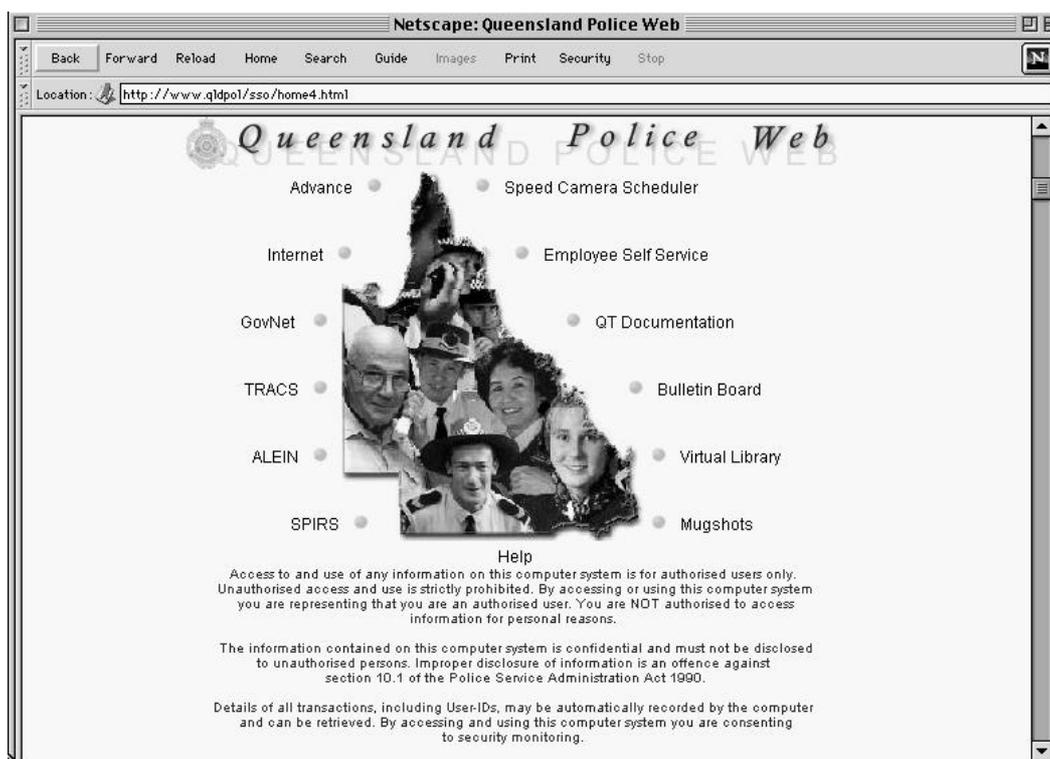
## Corporate Intranet and Information Technology Considerations

The QPS has a highly developed and complex statewide corporate Intranet which can be accessed from any networked QPS computer. Stringent information security requirements dictate a mostly stand-alone network, such that access to the Intranet is strictly limited to QPS personnel using QPS computers. Internet access is a limited resource and as of July 2001, only 14% of personnel have Internet access..

The QPS delivers its information technology in a cross-platform (NT/UNIX), cross-browser (Netscape 2 & 4/Internet Explorer 5.0) and cross-operating (Macintosh/IBM) environment. The computer fleet is a combination of Macintosh and IBMs where machines range across LC630s, Quadras, PowerMacs, G3s and IBMs/Pentiums. The network has limited capacity and operates on a 64Kb/s bandwidth with file sizes limited to 50Kb/s. Fortunately, the QPS is currently migrating from Unix to NT servers, and transferring the computer fleet from Macintosh to IBM, which will standardise technology services and systems and resolve various technological challenges.

The VL is one of many systems available on the QPS Intranet (see Figure 2) and is able to operate across various technological environments ensuring equitable access to all personnel. Without organisational-wide Internet access available, the VL has become the hub of providing access to, and dissemination of, both commercial and in-house information resources. Below is a screen capture of the QPS Intranet home page.

**Figure 2. Queensland Police Service Intranet Home Page**



## Client Profiles and Demographics

QPS personnel are employed across a wide range of professional, technical and administrative fields, including criminology, scientific, legal, education and information technology. Of these, approximately 85% are considered distant or remote clients of the Library Service and are unable to visit a QPS Library to access traditionally-delivered services or resources in an equitable or economical manner.

The information requirements of personnel are influenced by two key factors. These include day-to-day knowledge and skills required to undertake positional roles and responsibilities as well as continuing professional development programs. Of significance was the Fitzgerald Inquiry (1989) which identified the need to introduce formal educational programs for police officers with a particular emphasis on management and legal skills. Accordingly, numerous in-house educational programs ranging from 2 hours to 18 months in duration have been developed and implemented. Some of these programs are conducted in partnership with various universities. Topics range from highly specialised and technical, including firearms and intelligence training to general computing skills. Below is a list of some of the programs offered by the QPS to its staff:

- Assessment Development Centre Program
- Competency Acquisition Program
- Constable Development Program
- Driver Training Wing
- Firearms & Officer Safety Training
- First Year Constable Program
- Investigations & Intelligence Training Program
- Management Development Program
- Computer Training
- Police Operational Skills & Tactics
- Police Recruit Operational Vocational Education

Many of these programs are compulsory for police officers who must successfully complete specified courses to be eligible to apply for promotion to the next rank. In 2001, a similar scheme was established for public servants who can undertake a Certificate, Diploma or Advanced Diploma in Government. Likewise, completion of these qualifications entitles public servants to be eligible for higher remuneration.

## Queensland Police Service Library Service

The Queensland Police Service Library Service encompasses three physical libraries based at Police Headquarters (Brisbane), Oxley Academy (Oxley) and the Townsville Academy (Townsville). It employs 15.5 library staff (4 librarians, 5.5 library technicians and 6 administrative officers) who operate within a virtual team environment. The nature and structure of the Library Services team can be defined as “a group of people who work interdependently with a shared purpose across space, time, and organisation boundaries using technology” (Lipnack & Stamps, 2000:18).

Library Services was established to support the vast array of information needs of operational police and public servants. The very nature of the organisation presented a number of challenges in delivering traditional library services throughout the state of Queensland. With a library staff/client ratio of 1:683, and with 85% of clients being remote or distant, traditional methods of delivering information resources and services are not a viable option.

In December 1997, the VL was implemented as a corporate system available on the QPS Intranet (See Figure 3). Today it provides access to:

- library catalogue (commercial software package: Unicorn-SIRSI Australia Pty. Ltd.)
- electronic journals
- in-house online services and resources and
- commercial databases including Butterworths and Emerald/Anbar.

**Figure 3. Virtual Library Home Page**



Clients can access, search, request and retrieve resources from the VL from any networked computer within the QPS. The VL provides access to over 30,000 items with the bulk of material available in hardcopy format. Selected core materials are available online full-text in either PDF or HTML format, with much of the curriculum resources also available in electronic format. In particular, the VL hosted full-text online manuals and resources for operational police involved in the Olympics 2000 and pre-CHOGM activities. Other online manuals available on the VL include:

- Explosives
- Special Emergency Response Team (password protected limiting access to authorised personnel only)
- First Aid
- Domestic Violence
- Traffic Incident Investigation
- Briefings and Debriefings
- Information Security and
- Certificate/Associate Diploma/Graduate Diploma in Government resources.

The implementation of the VL prompted the migration of various traditional library services from hardcopy/in-person services to online/virtual services including:

- reference
- requests
- inter-library loans
- photocopying request forms
- current awareness and
- information alerts.

Confined within the bits and bytes of the QPS Intranet, the VL inadvertently took on the role of the “information highway” – on a budget! The lack of Internet access throughout the service led to a greater dependency and reliance on the VL in meeting the information needs of clients.

## **Traditionally-Delivered Library Literacy Programs**

Until March 2001, library education programs continued to be provided face-to-face, but to only those clients who were stationed within reasonable travelling distance (i.e. less than 100 kilometres each way) from one of the three libraries. In addition to impromptu or informal training sessions, a number of formal and structured programs are also offered including:

- Using the VL
- Research skills
- Legal resources
- Internet
- Recruit
- Police Operational Conversion Course
- Intelligence
- Detective training.

Library Services considered the option of delivering statewide face-to-face training programs but was not deemed feasible for the following reasons:

- number of QPS personnel
- distance and vastness of area
- cost of travel
- time
- difficulties in scheduling training times suitable to police roster commitments and shiftwork requirements
- human resources required from library services.

Although this option certainly provided for a short-term solution, it posed considerable costs. Furthermore, the VL is a constantly evolving service where training is an ongoing investment which cannot be effectively undertaken within a face-to-face environment. As an interim measure, Library Services developed a comprehensive online user guide for the VL which received the second largest number of hits on the VL, after the catalogue.

Throughout this time, Library staff continued to respond to high numbers of general help inquiries from personnel requiring assistance in using the VL. However, the undertaking of mass repetitive inquiries monopolised scarce human resources that could have been re-deployed in developing value-adding services. The implementation of the VL and subsequent ongoing enhancements and modifications, highlighted the inefficiencies in traditional training delivery mechanisms. They were considered neither viable nor effective, and of greater concern, was the potential risk that the VL would be under-utilised and possibly obsolete, if clients were neither educated in using the VL, or aware of its value and potential.

It became evident the delivery of face-to-face training was becoming more costly in terms of human resources. In particular, “face-to-face time is increasingly precious, a scarce resource in limited, costly supply”(Lipnack & Stamps, 2000:131). These factors prompted an investigation into alternative methods in delivering library literacy programs including that of a Computer-Based Training (CBT) strategy ‘where new forms of Internet-based communication surely offer at least some alleviation of the problems associated by the tyranny of distance and isolation” (Thomas, 1999:16).

## **The Virtual Library Computer-Based Training (CBT) Strategy**

The VL CBT can best be described as an online, self-contained, self-paced interactive library training program that aims to skill clients in maximising effective utilisation of the VL services. It uses captured interactive screens to emulate the live version of the VL and primarily focuses on training clients in searching the library catalogue. It is presented in 15 sub-sections with clear and concise prompts that guide the client through each topic. Each topic is introduced as a scenario-based situation where clients are required to enter search terms, view search results, place requests and undertake all functions that are available to them from the live version of the VL. Throughout the VL CBT, instant feedback is provided via pop-up dialog boxes to both guide clients in correcting errors as well as reinforce correct actions and answers. Upon completion of most topics, the client is presented with one or two randomly generated multiple-choice questions to reinforce their newly-found knowledge and skills.

## **Purpose/Aims of the Virtual Library Computer-Based Training (CBT)**

The purpose/aims of the VL CBT is to:

- provide clients with skill sets and knowledge in best utilising the VL
- deliver an online self-paced VL training package to all QPS personnel regardless of demographics, in an equitable and economical manner
- provide a hands-on learning program that can be undertaken at any time by the client, thus avoiding conflicts with rosters and work commitments
- provide a library literacy program and referral point, available 24 hours, all year round
- gain formal accreditation of the VL CBT as part of the QPS Training Program which attracts 5 credit points towards pay-point progression
- reinforce learning in a fun and time-efficient manner
- release library personnel from routine library instruction inquiries and enable them to develop value-adding services and undertake more stimulating tasks
- promote and market the VL in order to encourage and increase its usage.

## **Learning Outcomes**

The VL CBT aims to equip QPS personnel with a number of library literacy skills and knowledge. These are:

- knowledge of the VL and its services and resources
- how to best access, search and retrieve VL information resources in a timely and effective manner
- understand advanced search techniques including Boolean, truncation and substitution.

## **Developing the VL CBT**

Prior to the VL CBT, a number of well established face-to-face training programs were provided to QPS personnel. The structure and content of the VL CBT mirrored these face-to-face programs with modifications being made to accommodate delivery and access within an online learning environment.

Overall, the CBT took approximately 3 months to develop which was undertaken by all Library Services personnel, in conjunction with their other roles and responsibilities. Staff were allocated different modules and were responsible for producing content. Completed modules were then exchanged between staff for review and editing. Once the content had been provided and refined for all of the modules, staff reviewed the entire program, offering additional changes before being forwarded onto Sergeant Kim Nisbet, who developed and designed the program.

## **Client Design Considerations**

An analysis of the client profile is imperative to determine how to best develop and package a training resource that is appealing to the organisational culture within a learning context. The VL CBT was designed to maximise participation and utilisation of the resource and considered various criteria such as client demographics, library literacy skills, client time constraints and roster commitments.

## **Differing Library Literacy Levels**

The content of the VL CBT had to accommodate for a range of library and computer literacy levels without being considered “too basic” or “too confusing” by the audience. With this in mind, the VL CBT was structured as a free-flowing resource so that individual topics could be accessed randomly without forcing the client to follow a sequential path. The VL CBT steps from basic or introductory level sessions to advanced. Hence the client can assess and determine the level at which they commence the VL CBT. They may enter and exit any section of the VL CBT, at any time without consequence. This structure allows for greater content flexibility to accommodate various topics that range from basic library literacy skills to advanced, without risking client disillusionment and lack of interest. The range of levels in the VL CBT also removes the need to comprehensively audit existing library literacy skills as well as not having to tailor the program based on perceived average or majority rules literacy skills.

## **Time**

As in most organisations today, QPS personnel are time poor and are limited in being able to undertake training programs and other secondary commitments. Ideally, the objective is to provide clients with a thorough and comprehensive instruction program but in reality, lengthy programs can often deter time poor personnel. To maximise participation rates, the VL CBT was designed to enable clients to quickly enter and exit the program as required. Consisting of 15 modules, each module takes approximately 5 minutes, or 75 minutes in total, to complete.

## **Scenario-Based Situations**

The VL CBT uses relevant and realistic scenario-based situations to gain and hold audience interest. Scenario-based situations aim to place the client in a realistic situation relevant to

their position. To identify relevant situations that appeal to the majority of clients, library staff audited past reference inquiries, including those repeatedly received from QPS personnel. In addition, the mass training provided to clients to independently tackle “repeat” or common reference inquiries has alleviated library personnel to attend to other non-repetitive and possibly more interesting inquiries.

Some of the scenario-based questions available on the VL CBT are:

*“Your region has been experiencing an increase in reported motor vehicle thefts and you have been asked to research the topic to assist in developing strategies to deal with the problem.”*

*“You would like to apply for a more senior position that has been advertised in the QPS Police Gazette. You wish to locate some resources on how to approach this task.”*

*“You are writing a proposal to initiate a new problem-oriented policing program on ‘community policing’. This will require you to search the Virtual Library Catalogue.”*

It was important that the VL CBT capture and hold audience interest and this was achieved by creating interactive screens. Clients are provided with a hands-on and practical tutorial where they are required to input data, and point and click on various text and images. Instant feedback is provided via pop-up dialog boxes which guide or tutor clients in correcting mistakes as well as positively reinforcing correct answers or actions.

### **Reinforced Learning Strategy**

At the end of most modules, one or two randomly generated questions are provided. These questions are not compulsory and may be skipped if so desired. Consideration was given to time poor employees such that questions were formatted (multiple-choice) and phrased (definitive not open) to enable clients to simply click on the selected answer.

### **Learning Styles**

It was important that the design of the VL CBT satisfy different learning styles and client demographics. The VL CBT was designed so that it could be accessed from any location in either a group or individual learning environment. Library staff also identified that some clients had a degree of anxiety about using the library and its services, and therefore an individual learning environment may be more attractive to these clients. “A tutorial can...present the material in an interactive manner and attract users who may shy away from printed instructions and can be available at times when workshops and classroom sessions are not scheduled” (Dennis and K. Broughton, 2000:32). It was imperative that the VL CBT be available 24 hours per day to accommodate for personnel who had rotating shifts and roster commitments.

### **Pay-Point Progression Incentive**

The VL CBT attracts five credit points towards an employee’s next pay-point progression. After undertaking the VL CBT, clients can enrol in the VL assessment module where they must complete the compulsory milestones consisting of 10 multiple choice questions randomly

generated. The client must attain 100% correct answers to pass, and are provided with 3 attempts.

The VL CBT avoids usage of library jargon and acronyms. Where appropriate, it employs direct, concise, positive and encouraging dialog. More importantly, the amount of text per screen is limited to reduce the level of passive interaction and maximise active interaction.

## **Format, Layout and Design Considerations**

Careful consideration was given to the presentation of the VL CBT where many of the decisions regarding format, layout and design were pre-determined or dictated by the live version of the VL. The CBT emulates the live version of the VL by using screen captures and any additional text and graphics are formatted using the same colours, fonts and layout available on the VL, to ensure that clients are familiar with the layout of the live version.

## **Software and Technical Considerations**

The VL CBT was developed using Macromedia CourseBuilder Extension for Dreamweaver 3, formerly known as Attain Objects for Dreamweaver. CourseBuilder was the first visual authoring tool for building online training including tutorials, user-interactive learning and testing, using interactive Web pages. It allows you to create complex logic to create scenarios that engage users with a high level of interactivity and generates logic-based objects that interact with users such as pop-up dialog and feedback boxes. You can choose from clickable hot spots, drag-and-drop, and a variety of question styles including multiple choice, matching, and fill-in-the-blank. In addition CourseBuilder offers a knowledge track application (computer-managed instruction (CMI)) that can track and score user input.

Using web-native content, such as HTML, DHTML and JavaScript, the end-client does not require a plug-in or applet download to operate the CBT. Moreover, CourseBuilder is compatible with QPS technology requirements and facilitates equitable and timely access from cross-browser (Netscape 4 and Internet Explorer 5.0), cross-operating systems (Macintosh and IBM) and cross-platforms (NT and UNIX). Relatively easy to use, CourseBuilder provides tabbed wizard pages that step you through the process of creating and editing interactive screens offering a wide range of templates and design options.

Prior to the development of the VL CBT, a number of other QPS CBTs had been developed using CourseBuilder. These programs had proven to be highly successful in terms of delivering a state-wide online training program to all clients regardless of their information technology requirements. Library Services opted for CourseBuilder as it was the proven standard for CBTs in the QPS which had a number of highly skills staff available to develop and design the VL CBT with no additional changes to Library Services. Hence CourseBuilder was the most appropriate solution for Library Services that offered a proven product, cost free.

## **Content**

Topics range from basic information and easy practical examples to advanced searching techniques. These are:

1. Accessing the Virtual Library
2. Registering with the Virtual Library
3. Introduction to searching the Virtual Library Catalogue
4. Conducting a search on the Virtual Library Catalogue
5. Advanced searching on the Virtual Library Catalogue
6. Printing and downloading from the Virtual Library Catalogue
7. Borrowing library materials from your computer
8. Renewing your library materials from your computer
9. Finding out 'What's New' on the Virtual Library
10. How to compile a topic list of resources
11. Searching for Management Development Program materials
12. Searching for photographs
13. Changing your PIN on-line
14. Changing your work address details from your computer
15. Virtual Library crossword.

## **Quality Assurance**

Throughout the development of the VL CBT, and prior to its release a number of quality assurance measures were undertaken. One of the most effective measures was the selection of ten QPS personnel to be “reactors” for the VL CBT. They were chosen from various fields, including police officers and public servants of wide-ranging library literacy levels. These reactors were required to work through the entire VL CBT and provide comprehensive feedback on layout, content and so on. Feedback was compiled, final amendments were made to the VL CBT, and Library Services staff breathed a sigh of relief.

To preserve integrity and relevancy of the VL CBT content and format, the quality assurance process is an ongoing activity. A compulsory review of the VL CBT is scheduled every 6 months, in addition to further amendments that are undertaken outside of this time frame. A spreadsheet has been established to record all changes made to the VL. These changes are then mirrored in the VL CBT.

## **Licensing and Copyright Considerations**

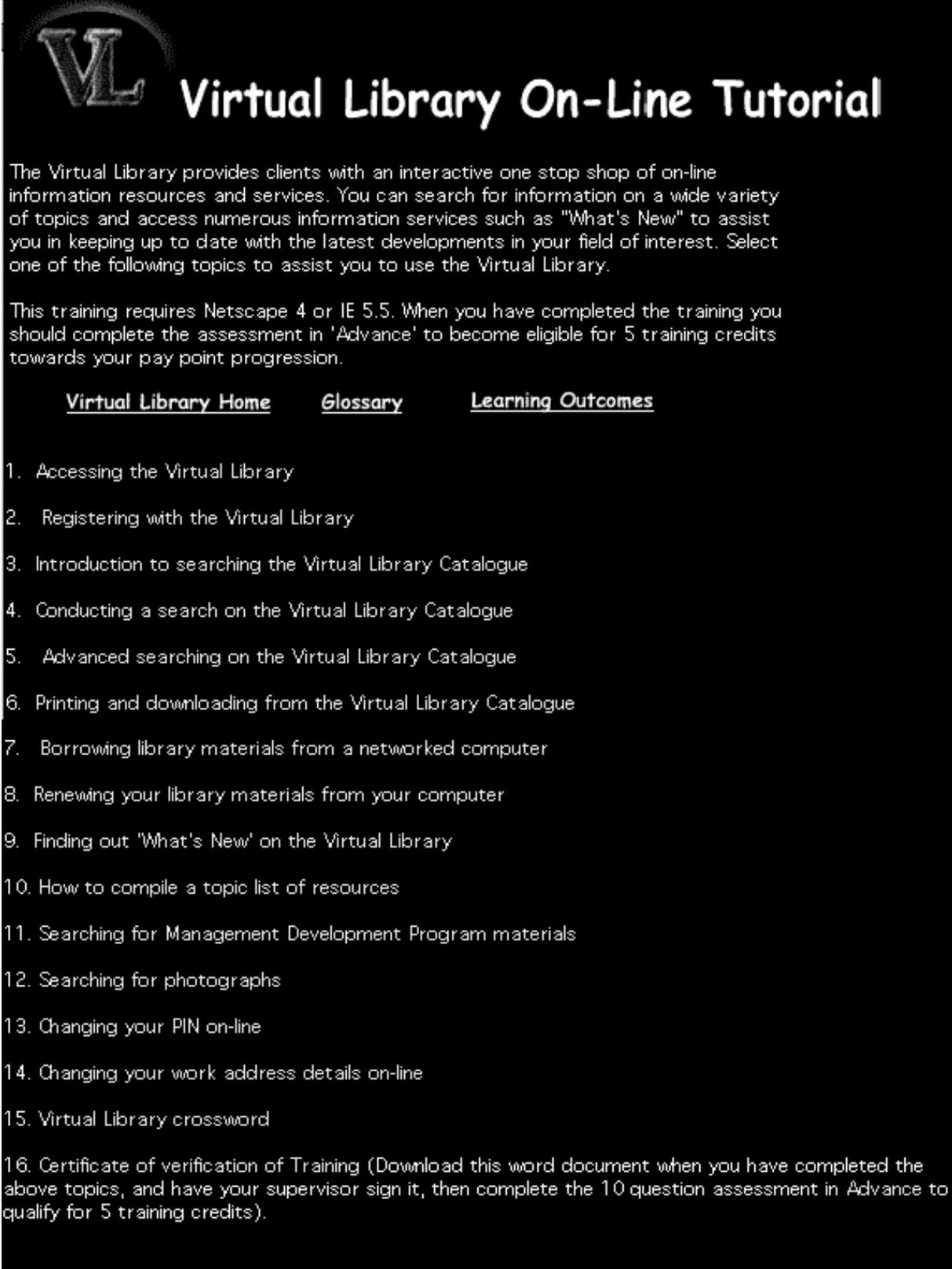
The VL CBT uses screen captures of the live catalogue which is a commercial software package purchased from SIRSI Australia Pty. Ltd. Library Services sought approval from SIRSI Australia Pty. Ltd to use screen captures from the live version of the catalogue. All other products on the VL used in the VL CBT were created by Library Services such that licensing and copyright are owned by the QPS, Queensland Government.

## **Marketing**

Library Services developed a marketing strategy without incurring any costs, using existing in-house resources. These included an article in the QPS magazine “Police Bulletin”; a statewide e-mail; and an advertisement on the QPS Bulletin Board Home Page. Combined with the added incentive to QPS personnel to acquire vital training credit points, the VL CBT

continues to be the second highest accessed service on the VL, after the catalogue. In an external context, the VL CBT won the ALIA Innovation in Special Libraries Award 2001.

**Figure 4. Virtual Library Computer-Based Training Home Page**



**VL Virtual Library On-Line Tutorial**

The Virtual Library provides clients with an interactive one stop shop of on-line information resources and services. You can search for information on a wide variety of topics and access numerous information services such as "What's New" to assist you in keeping up to date with the latest developments in your field of interest. Select one of the following topics to assist you to use the Virtual Library.

This training requires Netscape 4 or IE 5.5. When you have completed the training you should complete the assessment in 'Advance' to become eligible for 5 training credits towards your pay point progression.

[Virtual Library Home](#)    [Glossary](#)    [Learning Outcomes](#)

1. Accessing the Virtual Library
2. Registering with the Virtual Library
3. Introduction to searching the Virtual Library Catalogue
4. Conducting a search on the Virtual Library Catalogue
5. Advanced searching on the Virtual Library Catalogue
6. Printing and downloading from the Virtual Library Catalogue
7. Borrowing library materials from a networked computer
8. Renewing your library materials from your computer
9. Finding out 'What's New' on the Virtual Library
10. How to compile a topic list of resources
11. Searching for Management Development Program materials
12. Searching for photographs
13. Changing your PIN on-line
14. Changing your work address details on-line
15. Virtual Library crossword
16. Certificate of verification of Training (Download this word document when you have completed the above topics, and have your supervisor sign it, then complete the 10 question assessment in Advance to qualify for 5 training credits).

## **Disadvantages and Advantages of the VL CBT over Traditional Delivery of Training Programs for the QPS**

The VL CBT cannot completely substitute for traditional face-to-face instruction. Face-to-face is the most desirable method in delivering training as it provides for spontaneous interactive and open communications without having to pre-program automated responses and dialog. In an ideal world with unlimited resources, face-to-face is the preferred option. However, QPS client demographics, client profiles and organisational requirements relegate traditional training methods as inequitable and uneconomical options. Traditional training methods cannot reach all clients, whereas the VL CBT can be accessed and utilised by all personnel at any time. However, the VL CBT does pose numerous disadvantages and advantages over traditional training methods.

### **Disadvantages**

The VL CBT does not provide for a complete or perfect solution in delivering training programs to QPS personnel in an appropriate manner. In terms of client personal preferences, the VL CBT may disadvantage those who prefer human instruction. Some of the disadvantages identified are:

- level of tasks may be considered too basic or difficult by users
- dialog boxes are rigid and generic and do not allow for further explanation or for secondary communications
- administrative over-heads to ensure content and text is up-to-date and accurate and mirrors the live version of the VL.

One of the biggest disadvantages is that some users may feel isolated or unmotivated without the human interaction factor. In fact, a number of studies into the use of information technology training programs suggest that these methods “support a passive and information-driven mode of learning, rather than the desired social construction and negotiation of knowledge” (Thomas, 1999:12).

### **Advantages**

The VL CBT offers a number of advantages for the QPS over traditional delivery methods. Some of these are the provision of:

- cost savings (cost of trainer; training material; travel expenses and the cost of replacement workers such as overtime or locum fees)
- a risk management strategy: provides an effective backup system for live face-to-face client education programs during library staff absences or system down time
- a flexible learning environment to meet both individuals or group session requirements that is self-paced, self-testing and can be entered and exited at any level of the program
- an online, 24 hour reference point with immediate and automated feedback
- training program that can be accessed at any time removing the need for personnel to be removed from active duty
- consistent training program such that everyone receives the same information in the same context of the same quality.
- an evolving program that can be edited in a timely and cost-effective manner and mirror changes in the live database, legislation and so on.

The VL CBT also relieves staff from routine library literacy inquiries to develop value-adding services and products. This seems to be a common outcome which was experienced at the Jerome Library, Bowling Green State University, Bowling Green, Ohio, USA, where “Many librarians felt that students seeking assistance at the reference desk asked less basic questions, questions that went beyond the scope of the modules” (Dennis and Broughton, 2000:32). More importantly, training can be undertaken when the client requires, or has a use for, the knowledge or skill. Quite often, clients receive training before they have a need to use it with the result that the relevance of the training program, and their interest or commitment, may be weakened. The VL CBT reduces the risk of lack of interest as well as bridges the time lag experienced between the training program and its application.

The QPS Library Service experience in developing and delivering a VL CBT has proven to be highly successful. It is evident that the advantages far outweigh the disadvantages. The VL CBT facilitates mass training of remote clients in an equitable and economical manner, regardless of client demographics. It provides for an effective alternative solution to traditional training methods, and although it will not replace face-to-face instruction, it has proven to be the best option in overcoming access, equity and cost issues. Library Services consider the VL CBT complementary to face-to-face training programs, and has enhanced and strengthened our ability to educate clients in library literacy.

## **Future Direction**

The next phase of development is to transform the face-to-face Library Trainee Prosecutors Course to a CBT format. Currently, legal instruction is provided to trainee police prosecutors stationed in the Brisbane, Gold Coast and North Coast region. The trainees are required to travel to Brisbane to attend the 2-hour sessions which are conducted 3 times over a three week period. The course is intensive and time is very limited.

There are approximately 200 police prosecutors stationed throughout Queensland, many of whom are unable to receive face-to-face tuition. With ongoing changes in legislation and various commercial legal services, there is a gap in delivering bridging courses to remotely based prosecutors.

## **Conclusion**

There is an ever increasing training requirement within Library Services that has fostered the search for training solutions that are deemed more equitable, cost-effective and efficient than that for traditional training programs. The implementation of the VL CBT was designed to meet client demographics, profiles and library literacy requirements. The VL CBT enables clients to control their own training experiences where they can work through the program at their own pace. The ability to enter and exit the program at any time, and freely select modules to work through, reduces overall training time and results in a faster and more efficient learning environment. Clients are able to interact with the program by undertaking scenario-based exercises, reinforced with multiple-choice questions and immediate feedback. The VL CBT is available 24 hours per day, every day, so that access is not dependent upon rosters, class room availability and other work commitments.

The VL CBT has overcome the enormous geographical barriers that challenged the delivery of traditional library literacy programs in the QPS. Although Library Services recognise that the VL CBT does not provide a total solution, it has certainly facilitated the provision of training to clients who would otherwise be without.

## Bibliography

Dennis, Stefanie and Broughton, Kelly. 'FALCON: An Interactive Library Instruction Tutorial', *Reference Services Review*, Volume 28 (1), 2000, pp.31-38.

Getty, Nancy K [et.al] 'Using Courseware to Deliver Library Instruction Via the Web: Four Examples', *Reference Services Review*, Volume 28 (4), 1996, pp.349-359.

Lapp, Erdmute. 'Information Services and User Training in the Electronic Library', *Library Management*, Volume 17 (7), 1996, pp.31-36.

Lipnack, Jessica & Stamps, Jeffrey. *Virtual Teams: People Working Across Boundaries with Technology*, 2<sup>nd</sup> edition, New York : John Wiley & Sons, 2000.

Nozero, Victoria A, Whitten, P.A, Heaton, S, Tuma, K, Master, N and Armstrong, A. 'Flexible Instruction Program: How Demographics Drive the Design', *Reference Services Review*, Volume 26 (3), 1998, pp.61-74.

Queensland Police Service. *Queensland Police Service Internet Site: Regions*. [cited 16 July 2001] Available from Internet <URL: [http://www.police.qld.gov.au/qps/info/regions/r\\_main.htm](http://www.police.qld.gov.au/qps/info/regions/r_main.htm)

Queensland Police Service, *Queensland Police Service Annual Review 1999-2000*. Brisbane, Queensland Police Service, 2000.

Queensland Police Service, *Queensland Police Service Annual Statistical Review 1999--2000*. Brisbane, Queensland Police Service, 2000. [online] [cited 16 July 2001] Available from Internet <URL <http://www.police.qld.gov.au/qps/info/statsnet/strev990/strev990.ssi>

Thomas, Matthew. *Impacting on Communication and Learning: When Communication Technologies Constrain Communication*, 1999 [online] [cited 16 July 2001] Available from Internet <URL: <http://www.aare.edu.au/99pap/tho99508.htm>