This paper describes competency-based training and open learning, two methods of teaching/learning that are having a significant effect on the education offered through Australia's Technical and Further Education (TAFE) program. The paper defines competency-based training and open learning and details the broad impact they are having on resource services delivered through the TAFE college library. Two approaches to providing learners with research process skills that will harmonize with these teaching/learning methods are described. They include developing a team approach to research and developing thinking skills in concert with the processing of information. The last section of the paper describes how the TAFE libraries can promote their role in the development of informed information users. (Contains 12 references.) (KRN)
In this paper, I intend to concern myself with two methods, or styles, of teaching/learning that are having a significant effect on TAFE-based education. The styles of teaching/learning that are to be addressed are competency-based training and open learning. The adoption of these styles has implications for the research and information skills required by TAFE students and thus the reader education programs offered through college libraries.

Competency-Based Training

There are many groups and persons attempting to identify what the term competency-based training actually means. (Thomson; 1991) Whether we call it performance-based training, competency-based assessment or performance-based assessment; it is reasonably accurate to describe the thrust as the measurement of achievement through demonstrations of competence.

A statement of competence should include a description of the skills that are to be demonstrated, the standard to which the skill should be performed or exhibited and the conditions under which this will take place.
Thomson (1991) suggests that the strength of the system lies with its flexibility and ability to provide employers with workers who have exhibited mastery of a defined set of skills. In many cases competency-based training is undertaken using a modular approach with each module concentrating on specific areas of competence. Often, a self-paced, individualised approach to learning is adopted.

A reasonable definition of competency-based training is provided by Lawson.

*Competency based learning [training] is a teaching methodology focussing on the occupational skills students are expected to achieve and the performance of those skills. Progress through the training program is based on mastering of each competency, not on time enrolled or effort expended.*

(Lawson: 1990:p.1)

**Open Learning**

Defining the term *open learning* is a little more difficult. In its purist sense, open learning occurs when the learner is able to define what he/she wishes to learn, the conditions under which the learning is to take place, the resources to be used, the time frame for the learning experience, the objective/s of the experience, how achievement is to be measured and whether the level of achievement is satisfactory.
There does appear to be a blurring between pure open learning and its current manifestation. Perhaps if we classed open learning as being self-paced, self-contained instruction delivered through an extremely wide, flexible and efficient network the match with reality would be closer. For the purposes of this paper, the following definition of open learning is accepted.

*Open learning allows people to acquire or update skills or knowledge by offering learning methods that allow them to learn at a time, place and pace that suits their circumstances. Open learning [to do this] can take advantage of current technological options.*

(Open Learning Planning Committee; 1989).

**Broad Impacts**

The adoption of these teaching/learning styles is having an impact on the resource services delivered through the TAFE college library.

Both of these are resource expensive offerings. Students require access to an extremely wide range of resources to support the learning activities of individual modules. To cater for differing rates of progression a greater number of multiple copies of resources are required. In addition, the content and method of presentation of the resources will vary in accordance with the ability and preferred learning style of the student.
CBT and open learning allow for flexibility in the actual time when the learning activities are being undertaken by the students. This leads to an increased demand for resource service support over a wider range of times. Hence, there are staffing implications, i.e. adequate staff will need to be on hand to advise and assist clients at all times that the library is open. To counter this retardation factor, it is suggested that students must become self-sufficient information users. One of the sets of skills that they must master is the set of information processing skills and competencies.

It should be noted that, while these styles are being adopted mainly by the TAFE sector and within the more practical courses, such as mechanics, courses in business administration, information technology will be revised and restructured using competency/performance standard attainment as evaluation and assessment devices. Lawson (1990) presents a sound argument to support the use of competency assessment for the 'white collar'-type course.

**Improving User Performance**

One of the primary thrusts for reader education programs in response to the impact of these learning styles will be the improvement of performance, of our client group, in the areas of research process methods.
Smart (1991) indicates that, to improve the performance of individuals, four factors must be influenced and improved:

- **direction** - the individual must have a clear intent as to the purpose of an activity;
- **ability** - the individual must bring to the activity some prior understanding and experience and the basic skill set that will capitalised upon;
- **effort** - the individual must be committed to the process and have faith in the quality of the product of the activity;
- **resources** - the individual must have timely and assured access to a satisfactory quantity and quality of resources.

He suggests that, if one is to gain maximum results from the potential of their clients, each of these factors must be worked upon and enhanced. In reader education programs, we must address and/or enhance the performance and attitudes of our clients for each of these factors.

**Processes**

Within TAFE, our main aim is to prepare students for employment and to develop and refine the skills and knowledge of those already at work. It is suggested that it would be appropriate if the way in which students completed research activities mirrored how activities are carried out in business.
The flexible learning framework launched in England by that country's Employment Department suggests that the *inter-personal and intellectual skills needed in most work situations* should be frequently evident in school programs. (Learning to Learn; 1991:p.108)

The English educators paint the following scene to illustrate their point of bringing work practices to the school

*Picture the scene: a team of people is working on a project to an agreed deadline. Everyone knows which aspect of the project they are responsible for, and they all meet up regularly to report on progress and assess how well things are going.*

(Learning to Learn; 1991:p.108)

This model has the potential to serve as an effective, alternative method of organising the research/reporting process to the more common individual approach where the one student is responsible for defining the research need, locating and evaluating resources, extracting information, organising and assembling the information and then presenting the findings to the class, group or submitting them for evaluation by the teacher.

By using this approach students will be able to utilise the abilities of their peers while contributing to the group their own specialised abilities. By using this approach, the elements inherent in its conduct, such as recognition of individual skills, development of interpersonal relationships, coping with group dynamics, will need to be addressed through reader education programs.
To achieve these outcomes, and encourage the development of solid research processes, reader education programs should exhibit certain characteristics. In some cases the programs have emphasised source manipulation and physical location to the detriment of providing and/or developing in students a conceptual framework that will underpin information-gathering activities. (Wright & Larson; 1990)

It is suggested that the process is more important than the product. A well worn axiom compares the provision of fish with the mastery of the skill of fishing, suggesting that the latter is a more satisfactory activity.

Development of Thinking

Metacognition - that is the process of thinking about how we think, should be introduced to our students from their first days of schooling. The encouragement of and skilling in that process should go hand-in-hand with the development of a solid methodology for identifying and processing information.

The ease of access to word processing equipment and (heaven forbid!) image scanning devices has given students the ability to incorporate into their assignments, with little effort, text created by others. Perhaps, teachers should demand and expect students to present not only the finished product, but the notes they assembled to create that product.
To assist in the research process, students should also be introduced to the concepts of textual analysis. To assist in the development of reading for understanding, a knowledge of top level structures and text analysis techniques would assist. (Top level structure describes the organisation of a text, e.g. cause and effect, conditional, listing, comparison.) By identifying how the text is structured, students are able, with greater efficiency, to isolate and identify the information contained therein.

One would anticipate that if the student becomes aware of this mechanic, that, not only will it be used to recognise the structure of the resources being used, but also it would be utilised in the student’s work to give shape to the presentation of information.

Adoption of a Common Research Model

The process model described by Marland (1981) suggests that effective research occurs when nine competencies are utilised when locating and assembling information about a topic or subject. The user must be able to:

- formulate and analyse need
- identify and appraise likely sources
- trace and locate individual resources
- examine, select and reject individual resources
- interrogate resources
- record and store information
- interpret, analyse, synthesis and evaluate the information gathered
present and communicate findings.

evaluate conduct of the research process.

There is nothing dramatic about this process. It has withstood a reasonable test of time and proven to be an effective organisational model for the research process.

What is suggested, in this forum, is that adoption and promotion of these competencies should form part of the reader education in not only TAFE, but in all of our institutions. It is to be expected that the quality and results of the process will vary significantly from institution to institution; however our thesis is that, in this case, the understanding and following of the process is more important than the product. Mather (1990) has indicated that we should concentrate on the process of research rather than dealing with the artefacts.

A Role to Play

TAFE libraries need to vigorously promote their role in the development of informed users of information. Representation should be sought on curriculum committees, particularly those involved in rewriting curriculum to reflect competency-based training or open learning approaches to education.
A reader education program, in this context, should seek to put into place processes to ensure that students:

- are aware of the range resources available to them
- have a sound grounding in research process methods and are given opportunities to practice the methods
- have a sound knowledge of how resources are organised both within themselves and on the broader scene, i.e. from indexes and table to contents to data base delivery services, and
- are confident, competent users of resources.

Bibliography


Open Learning Planning Committee 1989, Designing Colleges for Open Learning, TAFE, Perth.

