The Defence Ministry's Proof & Experimental Establishment at Port Wakefield recently introduced a competency-based training (CBT) system for quality-related tasks. The following are some general observations from our experience and I would like to suggest that an approach to CBT doesn't have to be all or nothing.

Known locally as "the Range", we have a mixed military and civilian workforce of approximately 80, most of whom work within small specialist sections in testing and trialling ammunition and weapon systems. Our role is to ensure that the items under review are both safe for service personnel, and perform in accordance with specifications.

In Defence as in the wider community, these are times of considerable organisational change and the Range has had to find better ways of doing business. Our commitment to continual improvement was highlighted recently by the granting of accreditation to Australian Standard 3902 (AS3902).

This represented the culmination of almost two years' hard work. A key aspect of that change process was a comprehensive review of our training procedures, with a view to meeting the requirements of the emerging quality system.

ADVANTAGES OF CBT

In essence, CBT is a training system which places emphasis on the skills or competencies that an individual must demonstrate to complete a task to the job standard. Such a system may result in a simplified, more relevant records system, and a reduction in training time for many learners. In addition, particularly in an industrial or trade environment, CBT can offer portability of learning to a new employer. The system implemented at the Range is tailored to suit our needs and offers a number of benefits.

Firstly, the implementation process and records system is simple, flexible and well accepted by the supervisors responsible for its maintenance. It also encourages maximum involvement from the people who know how to do the job: the individual workers and their supervisors.

The record system is simple enough for a customer without a comprehensive background in training to understand, and is responsive to changing customer requirements. It also seems particularly well suited to on-the-job training and to implementation in isolation within an organisation.

In our case, CBT deals with specified components of an overall approach to training. As I suggested earlier, the implementation of CBT doesn't have to be all or nothing.

ORGANISATIONAL CONSIDERATIONS

All organisations are unique and a training system will reflect the environment in which it is created. In assessing the value of the Range's CBT experience, it is perhaps worth noting some of the key factors influencing its implementation.

The system in use is not the outcome of an industry requirement. It is instead an attempt to meet the needs of AS3902, in a way which will eventually permit an expansion to encompass all on-the-job training situations at the establishment.

No formal external training in CBT was available for those staff involved in its introduction. The model used and the design considerations were based on the general training experience held by the managers and supervisors responsible. This was supplemented by the use of appropriate texts — primarily those available through the National Centre for Vocational Education Research.

Fortunately, the majority of military supervisors had received formal training in instruction and course design.
during their careers. Implementation was faster than desired because of imposed time constraints. In my opinion this will probably be the norm in most organisations. Our primary aim was to get a suitable system in place, with a view to further refinement as appropriate.

The main question is: What did we learn?

**WHAT IS A COMPETENCY?**

Providing an answer to this question proved more difficult than anticipated. It was clear that the definition had to be understood by all staff and customers, and that no confusion should exist between a unit of competency and an element of competency. Early in the process we recognised that no one definition will suit the needs of all organisations. Our definition of a competency is: the ability to complete a task safely to an acceptable standard without direct supervision.

In general, the standard specified above is detailed in work instructions, user handbooks or determined and documented by the supervisor. Evidence of competence might include on-the-job training and assessment, course reports or trade qualifications. Although rough and ready, the above definition proved adequate for our initial needs.

**MAXIMUM INVOLVEMENT**

It was clear that active participation of supervisors and staff was essential for CBT to be successfully introduced. Its emphasis on specific and detailed skills means that CBT is not suited to be designed in isolation by an organisation’s training staff, who may well not be qualified in the identified units of competency.

Supervisors and workers are best placed to identify and document the competencies involved in their work area. This was a critical point in the development of ours and other such programmes.

It is the supervisor’s responsibility to manage CBT on a day-to-day basis, and he or she must therefore have a significant input into the way in which the system is established.

**IMPLEMENTATION PLAN**

Establishing a formal implementation plan, agreed to by supervisors, can be useful in gaining support, minimising the adverse effects of rapid change and assessing progress. The Range developed such a plan; however, it was disrupted by subsequently imposed time constraints.

In particular, the education process of supervisors and staff was severely hampered, with an initial emphasis on producing documentation rather than full understanding. The necessary attitudinal change was not achieved in all cases. This approach has resulted in the need for follow-up training which is currently being addressed, and significant revision of some documentation.

**DEFINITIONS AND DETAIL**

- Is it a unit or an element?
- If I don’t just inspect gauges, I inspect different types of gauges. Shouldn’t they all be listed as separate competencies?
- We only have one competency — everything else is an element.
- If I don’t get a stamp, does that mean I’m incompetent?

Questions and comments like these occurred frequently during the implementation of CBT at the Range. It was generally decided to accept the opinion of the supervisor. This has proven a sound approach and use and review of the system is gradually identifying inconsistencies.

A vital lesson here was: don’t get bogged down in detail.

**DOCUMENTATION**

The aim in designing documentation for use at the Range was to produce a simple system which could be easily understood by both the user and the customer. In addition, it had to reflect the fact that authority for competency certification was to occur at the lowest practical level.

In our case the primary document, a competency record, is simply a table specifying the competency and showing signed certification by the supervisor. Each record is supported by detailed elements of competency and performance criteria.

To date, the format chosen appears to be sound. It is simple to both complete and maintain, and lends itself well to expansion as an individual’s range of competencies grow. An emphasis on supervisor control has also resulted in a system which is readily accessible in the workplace and therefore more likely to be an accurate reflection of the current training situation.

**MEASURE OF SUCCESS**

CBT, albeit on a limited basis, has been successfully introduced to the Proof and Experimental Establishment. At present it is essentially a documentation system, which accurately reflects the current levels of competence in quality related tasks. Although a great deal of work remains to be done, the critical task of getting the system in place has been achieved, in a relatively short time frame.

The establishment chose CBT for both good and bad reasons, the most significant of the latter being expediency in meeting the requirements of AS3902. Such a situation simply reflects the reality within many organisations. CBT takes a great deal of work, and a high level of staff commitment if it is to be successfully implemented.

The future will show if an industry-wide development of competency standards is the answer to national training needs. It is, however, a flexible system which is well suited to both widespread implementation or specialised applications within organisations, particularly on-the-job training.

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