Manual For
VET Practitioners

VET RESOURCE MANUAL

Costing and Pricing of VET Products and Services

Part I: Manual
The Manual is in two parts for VET practitioners.

Costing and Pricing of VET Products and Services.

Part I: Manual
Part II: Toolkit (Worksheets, Spreadsheets, Questions, Tables, Schedules)

The Manual and Toolkit is designed for VET institutions, private, public and para public to assist co-ordinators and administrators to cost and price products and services.

The Manual and Toolkit is divided into two parts and has been designed as an electronic document to be distributed on CD-ROM and downloaded from the SDC website http://www.sdc.admin.ch/ei

The Introduction: will give you a summary of each section of the Manual and Toolkit. You will then be able to determine if this section or parts of this section is useful for you at that time. The introduction is in PDF/Word format.

Part I

Presents a background of VET systems in different countries, case studies and examples of good practise, financial management systems and a range of VET products and services. Also methods of financing VET services, recent developments and trends.

Part II

Provides a variety of practical tools including worksheets, tracer studies, spreadsheets, schedules and forms.

These are general outlines for practitioners, which can be adjusted to meet the needs of an institution.

The information is based on real life experience and needs expressed from a number of institutions visited and surveyed around the world.

The Manual can be used by VET staff directly involved in costing and pricing of their products and services.

To be able to effectively use the Manual, institutions must have sufficient autonomy to determine rules and regulations for financial management. Institutions must be able to initiate administrative systems and course cost calculations external to those of their parent organisation (if funded externally).

The Manual will provide assistance in establishing financial systems for these services.
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<td>Course Example: Priority Listing of Generic Skills</td>
<td>178</td>
</tr>
</tbody>
</table>
The Manual

Part I

The Manual is divided into two parts.

The First Part focuses on providing a definition of VET and a background in VET in different countries, including factors that affect costing and pricing, planning issues and labour market influences.

It includes information on financial systems and costing of a range of VET services and products.

Also methods of financing these services and recent trends in VET delivery. Real life experiences and examples of good practise are included.

Part II

The Second Part includes the Toolkit, which includes: templates, spreadsheets, work sheets, schedules, summaries, and case studies.

These are intended as guides only that can be adjusted to suit individual institutions and their costs.

Due to the diversity of training institutions it is not possible to provide materials for every individual institution.
FOREWORD

VET in Society

The VET sector is an important component of the education system of every country. VET provides a key role in providing education and training for work, including self employment. VET includes: pre-employment training, generic or employability skills, retraining unemployed people, upskilling existing workers skills, targeted equity training and fee for service or enterprise training. Governments target equity and disadvantaged groups to enhance their chances of gaining employment. Although VET systems vary from country to country from centralised to decentralised and dual systems, from supply to demand driven, all have similar objectives, *training for work*.

VET training institutions are faced with many obstacles and hindrances, both internal and external factors can affect their operations. Some common problems include: inadequate funding, competition from other institutions, inappropriate facilities or lack of space, attracting and retaining staff, lack of knowledge and information, collecting fees from students, civil unrest and unsuitable financial systems to accurately cost and price services.

Rationale for the Manual

As training markets develop and funding/financing providers require increased accountability, it is essential that training organisations are able to accurately cost and price their services.

The Objective of the Manual

The Manual will focus on providing information on VET systems around the world with examples of good practice, and in particular the costing and pricing of services and products. The Manual will also include a section on financing VET operations.

How can it be used

The Manual can be most effectively used by VET institutions that are able to implement financial management systems and supporting policies to cost and price their services. For institutions that must comply with the financial system of their parent or funding organisation, they must be able to develop financial systems external to this system.
Practitioner Input
To determine content for the Manual, input was sought from VET institutions, together with examples of “good practise”. A total of 40 institutions in Asia, Africa, Europe, South America and Australia were surveyed. The author would like to thank these institutions for their contributions.

Who will use the Manual
The Manual is intended for practitioners: VET Institution Managers, Financial Controllers and Course Co-ordinators. This includes: private, public and para public institutions. Small training providers with a few staff to large training institutions. Not all sections will be relevant for individual users. The Manual and Toolkit are web-based, training institutions can download sections of the Manual that are useful to them at that time.

Training institutions will be able to select which sections are of use at a particular time. More information can be accessed through the bibliography.
B VET Systems

1. Definition of VET

Vocational Education and Training is education and training for work.

“VET is taken to encompass all educational and instructional experiences – be they formal or informal, pre-employment related, off-the-job or on-the-job that are designed to directly enhance the skills, knowledge, competencies and capabilities of individuals, required in undertaking gainful employment, including self employment, and irrespective of whether these experiences are designed and provided by schools, public training institutions, or higher education institutions, by private training providers or by employers in industry”. ¹

Increasingly generic or employability skills are being taught in VET to enhance trainees chances of gaining employment.

2. Functions of VET

“VET should deliver both foundation and specialist skills to private individuals enabling them to find employment or launch their own careers, to work productively and adapt to different technologies, tasks and conditions.” ²

This would lead to improved personal and social productivity.

Governments often intervene in VET to ensure equitable access to vocational and educational training services. This intervention occurs in training markets that do not exist, or inhibit disadvantaged people from attending training.

(See section below on Labour Market Training)

3. Typical VET Services and Systems

“Vocational education and training systems are networks of organisations providing different training and education services to different national authorities.” ³

In Developing Countries where there is often a shortage of resources, systems are usually centralised.

In most Developed Countries VET is decentralised between national, state, regional and community levels.

3. Gasskov, V: op cit n 1, Page 11
The Manual will focus on three VET Services

i. Vocational Training, including pre-employment, basic education and generic skills; technical training

ii. Labour Market Training; for disadvantaged people

iii. Enterprise and Fee for Service Training

i. VOCATIONAL TRAINING: PRE-EMPLOYMENT, TECHNICAL AND GENERIC SKILLS

Offers pre employment and technical instruction. Most courses are short (up to six months though some may be 12 months part time). They normally take place in vocational and technical schools and colleges. Distance learning, for mostly rural people can be delivered through a range of technologies. Mobile training can also be effective in taking the training to the learners.

General Education schools are increasingly getting involved in entry and low level VET programs for young people.

Vocational training can be financed by government, business and trainees or combinations of all three. In developing countries the majority of financing is likely to come from the central government.

The majority of training is time served with fixed course length with skills assessment based on national standards.

Flexible training has been introduced in some countries called Competency Based Training (CBT). This recognises that students learn at different speeds, progressing when they are assessed at being competent at a defined skill or knowledge. Theoretically this can shorten the length of training.

CBT has different costing pricing and financing mechanisms.

Great Britain and Australia have introduced CBT.

For time served training the cost is often calculated on a cost per student per year for different industries.

What are Generic Skills?

The teaching of Generic Skills, sometimes called employability skills is gaining acceptance by VET institutions.

“The incorporation of generic employability skills into Training Packages and VET programs will provide enterprises with the skilled people they require to respond to the needs of the modern economy and help individuals meet the changing demands of the workplace.”


Training Providers recognise that the teaching of generic skills enhances their graduates chances of finding employment. Employers while often reluctant to teach these skills themselves value these skills and include them in their recruitment strategies. VET institutions will need to resource the delivery of these skills and train their staff in delivery and assessment. Those skills must be supported by government and certified.

Although Generic Skills have been taught for some time in VET institutions there is still debate over the definition, how they are taught, in what context and how they are assessed. Common Elements include: basic skills (literacy), people related skills, conceptual/thinking skills, business skills, community skills, personal skills and attributes.

Generic Skills vary between countries, regions and occupations. VET institutes need to identify and prioritise the Generic skills that are relevant for their courses.

See Manual Addendum 1 Generic Skills

ii. LABOUR MARKET TRAINING

Labour Market Training is a government intervention aimed at providing equitable access to disadvantaged groups eg. youth, women, disabled people, unemployed, caste, ethnic or religious groups.

It covers a broad range of job related programs ranging from short entry level pre employment courses to longer skills based courses.

These courses are often administered by national governments and conducted by national, NGO and private training providers.

Governments often specify outcomes and targets with incentives offered for training providers eg. payments to providers whose graduates are employed for a specific period following the training.

Labour market programs align with labour market needs as much as possible at that time.

Labour market training could include: skills based training for the unemployed, retraining for retrenched workers, upgrading courses for employees.

iii. ENTERPRISE OR FEE FOR SERVICE TRAINING

“Covers instruction provided or financed by employers usually from small to medium sized enterprises, for their employees, either voluntarily or in compliance with regulations set by government.” 6.

Government financing of this training can be met through a variety of regulations eg. training levies on industry fixed at a percentage of payroll, fixing the minimum level of training expenditure and number of trainees.

VET institutions provide fee for service training for employers – usually short courses aimed at improving productivity and efficiency.

VET fee for service courses are also conducted for NGO’s and INGO’s often under contract and targeted at a specific group of people.

VET institutions often offer higher fee paying courses where there is a strong demand and a good opportunity for graduates to receive well paid employment.

*It is essential that these courses are costed and priced to achieve targeted outcomes and quality training.*

VET institutions often have different pricing structures for private and community training. Regardless of the funding for the training, institutions must know the full cost of the training and the break even point.

B. References


**Gasskov, V:** “Managing Vocational Training Systems”, Geneva, ILO 2000

**Wheelan, L:** “Global Trends and Local Bends, Australian VET Development” – Journal of Adult and Continuing Education Vol. 9 No1. 2003


6. **Gasskov, V:** op cit n2  Page 20
Manual For VET Practitioners

Financial Systems
C  Financial Systems

What is in this section of the manual?

- **Definition of Accounting**
  In this section we cover the major features of accounting and the role that accounting plays in the management of a training institution.

- **The Purpose of Costing**
  A short description of why we build models to cost the delivery of the various services we offer.

- **The Objective of Costing**
  This section covers the need to have a goal for the costing exercise.

- **Sample Chart of Accounts**

- **Methods of Costing**
  Total Costing and Marginal Costing.

- **Indirect Costing**
  Purpose and objectives of indirect costing.

- **Depreciation**
  Description and methods of depreciation.

- **Financial Manual**
  Contains contents, sample templates and draft policies.

- **Pricing Methods**
  This section covers common approaches to pricing.

- **A Toolkit**
  comprising

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Item 1</td>
<td>Excel Documents</td>
</tr>
<tr>
<td>Item 2</td>
<td>Survival Kit</td>
</tr>
<tr>
<td>Item 3</td>
<td>Template Chart of Accounts</td>
</tr>
<tr>
<td>Item 4</td>
<td>Template Budget Variances</td>
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<td>Item 5</td>
<td>Template Fixed Asset Register</td>
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<td>Item 6</td>
<td>Template Costing Models</td>
</tr>
<tr>
<td>Item 7</td>
<td>Template Cash Book</td>
</tr>
<tr>
<td>Item 8</td>
<td>Calculating Training Room Rental - Depreciation Model</td>
</tr>
<tr>
<td>Item 9</td>
<td>Course Costing – Before and After Template</td>
</tr>
</tbody>
</table>
1. Definition of Accounting

Accounting is the recording of all transactions of a business, making informed decisions based upon this information and the subsequent production of reports for the managers of the institution on the various functions of the business.

Bookkeeping is the recording of the transactions.

Within the accounting system there are two main streams:

i. **Financial accounting**
ii. **Management accounting**.

**Financial accounting** is the recording and reporting of the training institution transactions for external users of that institution, with external users being the creditors of the company, shareholders, prospective financial investors in the institution and general members of the community. External users are people that have an interest in the institution, however may not be directly employed by the institution.

**Management accounting** is the recording and reporting of the training institution’s transactions for the efficient internal management of the institution, with cost accounting being a major part of the management accounting function. Management accounting is for the use of internal users, those directly employed or those directly responsible for the welfare of the training institution.

Cost accounting identifies the costs associated with a product, monitors and analyses these costs to ensure the delivery of an efficient and cost-effective product. The functions associated with the cost accounting role therefore are the recording of the data, the analysis and most importantly the reporting of these findings. It is the reporting and subsequent decision making based on this reporting that is crucial in the development of any cost accounting role.

**Why is Recording Important?**

The recording of the data is the allocation of the revenue and costs across the various accounts within the accounting system. The recording of the data is a bookkeeping function, which is crucial to the process. Without the correct allocation of the costs the subsequent analysis of the costs will be incorrect resulting in poor decision making.

The cost analysis is the core of the cost accountant’s role. The analysis focuses on controlling the costs and making informed decisions on them. The cost accountant needs to work with the management of the training institution to provide correct data in order that sound strategic decisions can be made.

The reporting of the analysis is equally important to the recording and analysis of the cost base. The reporting needs to be in a format and fashion that the users of the reports can easily understand.
The end users of the cost accountant’s reports may not be accountants and all effort has to be made to avoid jargon and technical terms that will diminish the understanding of the reports in the target audience. The report should be in plain language and specifically written for its target audience.

2. The Purpose of Costing

Correct costing will provide an understanding of all the elements that make up the cost base of a training institution. The true purpose of cost reporting is to provide users with information about the training institution, which is useful for making and evaluating decisions about the allocation of scarce resources. Once this understanding is achieved the strategic decision making will be enhanced, as all elements in the cost equation will be taken into account.

The following are examples of strategic decisions of training institutions that would be supported by costing:

- “Decisions on the internal allocation of funds
- Pricing of individual courses
- Determination of fees for students
- Assessment of the economic viability of courses
- Decisions on the overall course program
- Decisions on resource allocation
- Justification of bids for external funding and projects.”

It is assumed that the training institution has the ability and independence to make these decisions. Frequently a number of these decisions are made at semi government or ministerial level. This lack of independence may inhibit the training institution’s ability to make these strategic decisions.

It has to be stressed that cost reporting is not an end in itself but rather a means of communicating relevant and reliable information about the training institution to end users. Efficient allocation of scarce resources will be enhanced if those that make the decisions have relevant and reliable information via the costing exercise.

It is acknowledged that training institutions are an integral part of the local community. The training institution provides services to the local community, may levy prices (fees) on the community and may invest resources in the local community. As a result efficient resource allocation should not focus solely on the internal allocation of resources within the training institution, but also on the wider context of the resource allocation within the community, and what resources of the community should be allocated to the training institution.

The community interests are best served by the training institutions where the scarce resources of the community are used efficiently and effectively by the training institution. Costing plays a crucial role both internally and externally in the allocation of these scarce resources.

In this section we will focus on the internal costing of the training institution.

For costing information to be useful it needs to be relevant, reliable, understandable and the information provided needs to be material.

**Relevance**

For costing information to be relevant it needs to assist users in making and evaluating decisions on the allocation of scarce resources. This can be in the form of confirming or evaluating past decisions, assisting in the current decision making process or projecting into the future.

**Reliable**

With any decision making process the information needs to be reliable, free from both error and bias. There is risk associated with forecasting and cost predictions, however every effort should be made to minimise those risks as best as possible. It is unrealistic to assume that these risks can be eliminated when forecasting future events, however, any form of bias or error needs to be eliminated.

**Understandable**

The costing information needs to be understood by those making the decisions. If the information is not easily understood there is a strong chance that the decisions made on this data could be incorrect due to misunderstanding.

**Material**

To determine the materiality of information, you must ask the question, “if the information was excluded from the costing models would it impact on the reliability and relevance of the information upon which the decision making is being made?” If it does impact on the decision making process it is material, if not it is immaterial.

### 3. The Objective of Costing

It is essential from the outset to have a goal or an objective in costing.

The cost objective is the information needs of the end user.

Possible cost objectives:

- “Costs of a course or module
- Costs of a program
- Costs of a project, service or product
- Costs of institutional activities
- Costs of an organisational unit
- Calculation of indirect cost rates.”

This is by no means a complete list however it does highlight the fact that the cost objective needs to be defined prior to the commencement of the costing exercise.

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2. Jäger: op cit n1, Page. 5
Take for example the cost objectives of say, costs of a course versus the costs of institutional activities. In this instance the information needs of the institution are far broader and more extensive than the needs of those developing a costing model for a course within the institution. Not only will the scale of the exercise be different; the assumption underpinning the models will differ. This is simply as a result of the fact that the information needs of the end users will differ, that is the cost objectives will vary.

Prior to a cost objective being defined it is essential that the costs can be easily identified. The system that accounting uses to classify information is the chart of accounts.

4. Sample of Chart of Accounts

The chart of accounts is a descriptive classification of the accounting activities of an institution.

The chart of accounts is normally broken down to the following categories:

- Assets
- Liabilities
- Revenue
- Expenses
- Equity

It is a matter of judgement as to what level of detail you require in the chart of accounts.

**A suggested format is as follows:** (A full listing appears in the Toolkit.)

<table>
<thead>
<tr>
<th>Table 1</th>
<th>Sample Chart of Account Headings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assets</td>
<td>1 followed by 4-digit code</td>
</tr>
<tr>
<td>Current Assets</td>
<td>1-1000</td>
</tr>
<tr>
<td></td>
<td>Bank Account 1-1100</td>
</tr>
<tr>
<td></td>
<td>Petty Cash 1-1200</td>
</tr>
<tr>
<td>Liabilities</td>
<td>2 followed by 4-digit code</td>
</tr>
<tr>
<td>Current Liabilities</td>
<td>2-1000</td>
</tr>
<tr>
<td>Equity</td>
<td>3 followed by 4-digit code</td>
</tr>
<tr>
<td>Equity</td>
<td>3-1000 Shareholders Funds 3-1100</td>
</tr>
<tr>
<td>Revenue</td>
<td>4 followed by 4-digit code</td>
</tr>
<tr>
<td>Income</td>
<td>4-0000 Sale of Courses 4-1000</td>
</tr>
<tr>
<td>Expense</td>
<td>5 followed by 4-digit code</td>
</tr>
<tr>
<td>Expense</td>
<td>5-0000 Salaries 5-1000</td>
</tr>
</tbody>
</table>

Most small business off-the-shelf accounting software packages now come with an in-built chart of accounts.
5. Methods: Total Costing and Marginal Costing

Two popular costing methods are:

i. Total Costing
ii. Marginal Costing

i. Total Costing

Total Costing as the name implies takes all the costs associated with an activity into consideration. Total cost is the sum of the direct costs and the indirect costs.

Direct costs are those costs that can be directly attributable to an activity or product. Indirect costs are the costs that, by their nature, cannot be directly attributable to an activity.

It is suggested that those institutions that work on a cash based or payment based system will have difficulty implementing total costing in that not all the costs associated with the running of the training institution system will be captured in the organisation’s chart of accounts. The result being that costing has to be done external to the accounting system.

The advantage of full costing is that all costs associated with the cost objective are recognised and as such a solid platform is in place for any strategic decisions that need to be made. It is only where the full cost base of the institution is being recognised can the financial viability of the costing exercises be truly verified.

The disadvantage is that in the majority of public (government/semi government) training providers, with payment based accounting systems, costing has to be performed externally to the accounting system. This lowers the overall controls within the costing process and can diminish the quality of the data upon which the strategic decisions are being made.

ii. Marginal Costing

Marginal costing is a short-term concept and refers to the additional variable costs caused by an extra or new activity. For example, the decision to commence a new course will definitely require additional teaching resources and facilities to be provided whereas extra students in a class may not require additional resources depending on the number involved. Subject to class size it may be possible to absorb an extra one, two or three students without requiring additional teaching resources, however, beyond that it may be necessary to engage another teacher, provide additional accommodation and commence another class.

**TIP**

Please note that marginal and variable costs are used interchangeably. That is variable costs vary in direct proportion to the change in the activity.

An example here is when an additional subject is included in a training institute’s program. The costs associated with this are variable costs in that they are incurred outside of the normal program. The trainer’s wages and training material can all be viewed as marginal costs.
Marginal Costing is a short-term concept for calculating costs outside the regular programs. The major advantage of marginal costing is that it is more suitable to short term decision-making. The disadvantage is that costing is a very complex process and the bookkeeping may result in the exclusion of some variable costs as an easy option. The calculation of some of the variable costs may be quite complex and as a matter of expediency these costs may be excluded from the exercise resulting in incorrect data being prepared, increasing the likelihood that incorrect short-term strategic decisions will follow.

As has been highlighted marginal costing is a tool to aid and assistance short-term decision making, frequently it is employed to assist long term planning and this is its major shortfall. The point of marginal costing is to cover the variable costs of the activity; as a result the fixed costs may be overlooked in any long-term projections. Strategic long-term decisions based upon this incomplete data will be bound to fail.

6. Indirect Costing

Introduction

Indirect costs are those costs that although not directly traceable to a product, a department or a process, are allocated to them on some equitable basis. They are incurred either jointly for the benefit of more than one process or product or the cost is too small to be traced readily to a product or process.

What is in this section of the manual?

- **The purpose of indirect costing**
  In this section the purpose of indirect costing is discussed

- **The objectives of indirect costing**
  Here the need to discuss the goals and objectives of indirect costing highlighting the need to have these clearly defined prior to the commencement of any costing exercise

- **Methodology**
  There are numerous techniques available here, one example is used to clarify the costing model.

What is the purpose of indirect costing?

Indirect costing is an integral part of an overall costing model. The costing model is a key component in the development of a management information system that is concerned with the provision of financial and non financial information to the managers for the effective management of the training institution through planning, organising and control of the various activities.
The management information system is geared to all levels of the training institution, with each level accessing relevant key data from the model. For a costing model to be effective it is necessary to identify all costs associated with the product, not only those costs that can be directly traced, but also those costs that form a part of the overheads that can not be directly attributable to a product. What is frequently overlooked when costing products is the administrative costs such as senior management, payroll department and the accounting department. These are all costs that need to be factored into a costing model to arrive at a correct costing base.

*Once all costs have been identified the key feature is to allocate the indirect costs in an equitable manner so that the allocation process reflects the correct usage pattern of the resources of the entity.*

**Strategic decisions, supported by costing may include:**

- Decisions on the internal allocation of funds
- Pricing of individual courses
- Determination of fees for students and enrolment costs
- Assessment of economic viability of courses
- Decisions on the overall course program
- Decisions on resource allocation including: human, overheads, quality control and systems, consultancies, curriculum development
- Justification of bids for external funding.

**What are the objectives of indirect costing?**

The objectives of the costing exercise need to be defined prior to the identification and subsequent allocation of the indirect cost. For this to be successful you need to know not only the cost objectives but also the target audience.

Four key target members:

- “Financier
- Buyer
- Provider
- User.”

Each audience has a different perspective on the costing exercise and the model needs to take these variances into account.

The financier for example makes available the financial resources, the buyer orders and buys specific training courses, the provider offers training and the user participates in training. Consequently any costing exercise needs to be directed to the target audience to allow for informed decision making.

Once the target audience has been defined, it is necessary to define the objective of the costing exercise.

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3. *Jägger*: op cit n2, Page. 2
These cost objectives could include the following:

- “Costs of a course or module
- Costs of a program
- Costs of a project, service or product
- Cost of institutional activities
- Costs of an organisational unit.”

In all of the above examples there are direct and indirect costs

**Examples of indirect costs**

- The costing out of senior management time down to a subject level
- The allocation of administration charges, payroll and human resource functions to particular products
- Hand tools that are used in a number of courses and the subsequent allocation of the depreciation charges to these courses
- Utility charges such as electricity and gas are costs that may be incurred at an institutional level and need to be allocated to lower levels in the organisational structure.

In all of these cases the costs cannot be directly traced to a product or are too small to be directly traced to a product or process.

**Assumptions:**

For the purposes of this section we will use the Costing of a Subject Within a Course as the example to explain indirect costs.

- Subject is one subject in an overall program of a course comprising six subjects
- Training coordinator employed solely to run subject
- Classroom is rented and shared between ten other courses
- Normal administration costs of running a course.

In this instance the salaries or wages of the training co-ordinator are directly traceable back to the subject as the person is employed solely to run this subject.

The classroom costs are substantial enough to be able to be traced back to the subject.

However other overhead costs incurred by the institution in the running of the overall courses may not be so easily traced back to the subject.
Overhead costs such as postage and courier, cleaning and maintenance and stationery, which tend to be a high volume and low value expense, need to be allocated back to the cost of the subject.
These indirect costs have been incurred by the institution as a result of running the courses, and are an integral part of both the running of the institution and subsequently the courses and the individual subjects that make up the courses. To ascertain the true cost of running the subject these costs need to be allocated equitably.

The formula which develops from the above is: \( \text{Total Cost} = \text{Direct Cost} + \text{Indirect Cost} \)

To exclude indirect costs will result in the under statement of the overall cost base of the course and may have drastic implications regards pricing, funding decisions and the allocation of (generally) scarce resources.

Methodology

The process of identifying and subsequent allocation of the indirect costs is a science in itself and from the outset it needs to be stressed that this paper is looking at an overview of the various methodologies. The methodology suggested below is only one of many that may be utilised.

Cost Centres

One way of compartmentalising costs is to group all costs associated with a program or course and accumulate those costs under the one cost centre heading.
With the above example the program under which the course is run may be the cost centre or, depending on the sophistication of the systems in place to track the costs, the course itself may be the cost centre.
The natural flow is that the subject may be the cost centre, the course is department and the various courses make up the program and this may be the division.
The various divisions make up the overall cost base of the institution.

Organisational chart

<table>
<thead>
<tr>
<th>Entity</th>
<th>Institution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Division</td>
<td>Program</td>
</tr>
<tr>
<td>Department</td>
<td>Course</td>
</tr>
<tr>
<td>Cost Centre/ Profit Centre</td>
<td>Subject</td>
</tr>
</tbody>
</table>

Cost Centres and Profit Centres

In a fee-based institution the costs associated with the subject may be referred to as a profit centre and the administration/management arm of the institution would be referred to as the cost centre. The fee based courses would be generating the profits of the organisation whilst the overheads associated with the overall running of the institution would be captured under a cost centre heading.
The expenses associated with the profit centres are direct costs in that they can easily be attributed back to the subject.
The expenses associated with the cost centre are a mix of direct and indirect costs in that the indirect costs have been incurred either for the overall running of the institution or are of such a nature that they cannot be easily traced back to a profit centre.

How do you allocate Indirect Expenses?

There are a number of mechanisms that can be used in the allocation of the indirect expenses to a division, department or cost centre. The most obvious basis is that of usage. Printing and stationery charges may be allocated by usage. Telecommunication charges are another example whereby the cost may be allocated on a usage basis.

Another basis may be an activity charge whereby the expense is allocated by activity. An example here may be where the cost of the payroll department is allocated on the hours incurred by the teaching staff.

Capacity charges are yet another means of allocating indirect costs, occupancy costs is an example where the fixed costs need to be allocated across various courses. A suggested calculation would be that the administration and management departments occupancy costs are charged back to the course based on the relative share of the overall cost of the occupancy charge for the training institution.

Box 2

Case Study
Indirect Costs, Administration Department.

The administration costs of the training institution are a fixed cost. The administration department is geared to meet the demands of the training institute.

<table>
<thead>
<tr>
<th>Course</th>
<th>Teaching hours per month</th>
<th>Allocation</th>
</tr>
</thead>
<tbody>
<tr>
<td>x</td>
<td>50</td>
<td>$1,111.00</td>
</tr>
<tr>
<td>y</td>
<td>75</td>
<td>$1,667.00</td>
</tr>
<tr>
<td>z</td>
<td>100</td>
<td>$2,222.00</td>
</tr>
<tr>
<td>Total</td>
<td>225</td>
<td>$5,000.00</td>
</tr>
</tbody>
</table>

Cost of the administration Department per month AUD$5,000.00

Under the fixed charge course x would be charged 50/225 of the $5,000.00 budget or $1,111.00. The figures would not change over the period of the budget. The advantage here is that the amount charged to each course for non controllable fixed costs can be budgeted in advance.
Recommendation

In allocating indirect costs the essential point is that a usage pattern or capacity index should be used that best correlates to the usage pattern of the product. The worst case scenario is to choose an index that is inappropriate. An inappropriate allocation can lead to incorrect allocation, which in turn may severely impact the cost analysis. A degree of precision and exactness may be assumed that does not exist, resulting in poor and at worst incorrect decision making.

The rule should be that the allocation process is based upon a system that is easily recognisable or no allocation of the indirect charges should be made. The allocation has to be equitable and represent the usage pattern of the resources.

With the changing nature of the institution’s cost base, whatever allocation mechanism is developed it needs to be reviewed regularly. Once an index or usage pattern has been developed for the allocation of indirect costs it is essential that over time this index is constantly reviewed (at least annually) and modified where appropriate. The worst case is where an index or allocation method is developed and not modified to allow for the changing conditions of the institution.

Factors, which may influence which method to use, will be:

- Complexity of the cost base
- Sophistication of the accounting system
- Resources that can be allocated to the costing task.

Box 3
Case Study

<table>
<thead>
<tr>
<th>A. Direct Costs</th>
<th>B. Indirect Costs*</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Training Material</td>
<td>- Staff/Management/Admin Cost</td>
</tr>
<tr>
<td>- Instructors’ Remuneration</td>
<td>- Utilities</td>
</tr>
<tr>
<td>- Room Rent</td>
<td>- Depreciation of fixed assets</td>
</tr>
<tr>
<td>- Hiring and Renting of Equipment</td>
<td>used for the particular training</td>
</tr>
<tr>
<td>- Promotional (media)</td>
<td>(equipment, building, projects, cars etc.)</td>
</tr>
<tr>
<td>- Testing and Certification</td>
<td>- Repair and maintenance of tools</td>
</tr>
<tr>
<td>- Travel Costs (Mobile training)</td>
<td>and equipment</td>
</tr>
<tr>
<td>- Field Visits and Excursions</td>
<td></td>
</tr>
<tr>
<td>- Food and Refreshments for trainees</td>
<td></td>
</tr>
<tr>
<td>- Tracer studies (in case the funding</td>
<td></td>
</tr>
<tr>
<td>organisation requires it)</td>
<td></td>
</tr>
</tbody>
</table>

*Indirect Costs are sometimes referred to as Overheads.
Calculating Indirect Costs as a Percentage or Unit Cost.

Anecdotal evidence points to the fact that very few organisations have a satisfactory model for the calculation of indirect costs. Expediency generally results in a percentage method being used as the means of allocation. Even in the most sophisticated companies there is an imprecise science applied in the allocation of the indirect costs. The major restriction associated with unit costing is the amount of resources required to develop a satisfactory model. Hence the usage of a percentage to allocate the indirect charges.

It can only be stressed again that the best allocation method is the one that reflects the allocation of the indirect costs in the most equitable manner. This will provide a solid basis in any costing exercise and will allow for sound decision making in the allocation of the resources of the institution.

7. Depreciation

Introduction

Depreciation is applied to non current assets that have a limited useful life and a value excess of a specified amount. In Australia this is $1,000.00, however the threshold level will vary from region to region.

This limited useful life is sometimes referred to as the asset’s effective life. The run down in the effective life or useful life of an asset is a cost to the company and depreciation is the recognition of this cost.

The value of the asset, which is carried on the Balance Sheet, is decreased by the accumulated cost of that asset’s depreciation expense.

The actual expense to the company, depreciation expense, is reflected in the Profit and Loss report in the year that cost was incurred.

What is in this section of the manual?

Description of the major features that make up depreciation

Outlined below are the key features that impact depreciation.

Items covered are:

- Non Current Assets
- Effective life of an asset
- Cost of an asset
- Methodology
- Record Keeping.
What is a Non Current Asset?

An asset is defined as a future economic benefit controlled by the entity as a result of past transactions.

As per the Australian statement of accounting concepts there are three essential elements for an item to be classified as an asset.

1. There must be future economic benefits.
2. The entity must have control over the future economic benefit.
3. A past transaction must have occurred resulting in control of that asset.

*Non-current assets are those assets that are held by the entity for twelve months or more. This is the accepted timeframe, however as explained below this can vary depending on the asset type.*

What is the Effective Life of an Asset?

An effective life of an asset is generally expressed in terms of time.

There are a number of factors that influence effective life, including:
- the potential life of the asset given normal repairs and maintenance
- the potential technical life of the asset whereby the process remains efficient
- the commercial life of the asset.

The end result of these factors is that each asset is useful to an entity for a limited period of time. This limitation can be as a result of technical obsolescence. Computers are a case in point, they have an effective life of three to seven years, in most countries.

Furthermore the limited life of an asset can be as a result of wear and tear on that asset. Automobiles and trucks are prime examples where over time wear and tear undermines their performance so that at some stage they become inefficient and need to be replaced.

As such motor vehicles may have an effective life of five to ten years.

Buildings also have an effective life. Normal wear and tear will result in the building over a period of say forty to fifty years needing to be replaced.

A further limitation may be as a result of commercial obsolescence. Market demand may no longer be there for a product and as a result those assets involved in the production of that item may become redundant.

*The run down in the useful life of an asset is a cost to the company and that lost value of the asset is recorded as depreciation.*

From the above two points emerge:

1. For depreciation to be applied to an asset the asset needs to have an effective life of greater than twelve months.
2. There needs to be some estimate of an effective or useful life of an asset when that asset was first acquired. eg tools may be depreciated over a number of courses.
The effective life of a similar asset can vary from region to region given the above factors. What is important, is to choose the time frame that is most applicable to an asset, a conservative rule is to choose the shortest time frame that incorporates all the above factors.

**What is the Cost of Items to be Depreciated?**

Depreciation is typically applied to those items that have a value greater than AUD$300.00. In some regions this value may in fact increase to $1,000.00. When an item is purchased for under say $1,000.00 it is generally expensed directly to the Profit and Loss with the full $1,000.00 being recognised immediately as an expense item.

A major problem for some regions may be the calculation of the historical cost base. A case in point here is the costs associated with a building where a large number of the items employed in the construction are recycled or second hand items. Here it is not easy to identify the historical cost base. It is suggested that either an outside expert is called in to assist or a best guess based upon perceived market value is used.

**What is Revaluation of Cost?**

The above has all been based on the historical cost of the assets, however, it is not uncommon to view the cost of the assets in terms of current cost or replacement cost. The result here is that the cost base may be revalued upwards and as a result the amount of the depreciation going forward from the date of revaluation will require recalculation.

It is advisable to regularly review the effective life of an asset. The effective life of an asset is not a fixed item and a number of outside factors that may change over time can influence it.

As mentioned previously technical obsolescence and market demand are just two of these factors. As such the effective life should be regularly reviewed.

**What Methodology is used?**

The most popular method of calculating the depreciation expense is the prime cost method.

**Prime Cost**

The prime cost method is sometimes referred to as the straight-line method. As the name straight line implies a fixed amount is apportioned to each year that has benefited from the use of that asset.

For example if a computer cost AUD$10,000.00 and it was decided that the useful life of that computer was five years, $2,000.00 would be applied to each year that the computer was providing benefit to the organisation.

Formula: \[ \text{Cost Price } \div \text{ by effective life } = \text{Prime Cost} \]
The following example works through a number of the issues discussed.

Assumptions
Financial Year 01/01/XX to 31/12/XX
Purchase date of computer 01/01/XX
Cost Price AUD$10,000
Effective Life Five (5) years

<table>
<thead>
<tr>
<th>Year</th>
<th>Cost Price</th>
<th>Depreciation</th>
<th>Accumulated Depreciation</th>
<th>Written Down Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year 1</td>
<td>10,000.00</td>
<td>2,000.00</td>
<td>2,000.00</td>
<td>8,000.00</td>
</tr>
<tr>
<td>Year 2</td>
<td>2,000.00</td>
<td>2,000.00</td>
<td>4,000.00</td>
<td>6,000.00</td>
</tr>
<tr>
<td>Year 3</td>
<td>2,000.00</td>
<td>2,000.00</td>
<td>6,000.00</td>
<td>4,000.00</td>
</tr>
<tr>
<td>Year 4</td>
<td>2,000.00</td>
<td>2,000.00</td>
<td>8,000.00</td>
<td>2,000.00</td>
</tr>
<tr>
<td>Year 5</td>
<td>2,000.00</td>
<td>2,000.00</td>
<td>10,000.00</td>
<td>Nil</td>
</tr>
</tbody>
</table>

This example highlights the fact that $2,000.00 of expense is being recognised in the profit and loss statement. This expense represents the run down in the value of the asset. The $2,000 would be classified as depreciation expense in the profit and loss statement for each relevant year. At the end of Year 3, $6,000.00 of expense has been recognised. On the balance sheet for year three the asset is recorded at cost, $10,000.00 and the summation of the individual years expense calculation is recorded as accumulated depreciation. The accumulated depreciation of $6,000.00, $2,000.00 times 3 years, offsets the historical cost of the asset, $10,000.00, resulting in a net value of $4,000.00 being recorded on the balance sheet as the written down value of the asset. This represents the remaining future benefit that this asset is to provide the company.

The accounting entries on a year to year basis are:

Debit Depreciation (Profit & Loss)
Credit Accumulated Depreciation (Balance Sheet)

The Balance Sheet representation for year three would be as follows:

<table>
<thead>
<tr>
<th>Table 2b COMPUTER DEPRECIATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non Current assets Computers-at cost</td>
</tr>
<tr>
<td>Accumulated Depreciation</td>
</tr>
<tr>
<td>Written Down Value of Computers</td>
</tr>
</tbody>
</table>
The written down value represents the future benefits that the asset will bring to the company over the remaining two years of its effective life.
The depreciation expense of $6,000.00 represents the cost or loss in value of the asset in the first three years of use.
Viewed differently the asset has provided $6,000.00 of benefits to the company.

*Please note that depreciation and amortisation are used interchangeably in some publications. For ease of reference depreciation is used for physical assets whilst amortisation is applied to intangible assets such as goodwill.*

There are numerous variations on the above scenario. In Australia, as a result of recent changes to taxation law, diminishing value method is a popular way to calculate depreciation. This is where the straight-line method is multiplied by 150%. It is recommended that the training institutions check on the relevant tax laws of their country as this will change from country to country.

Formula: \( \text{Cost Price/Effective Life} \times 150\% \) (Countries need to consult their tax regulations)

**What is Usage Pattern Depreciation?**

The basis for all the above has been an effective life based upon time. It is possible to calculate depreciation on a usage pattern.
For example a manufacturing plant may be constructed in such a manner that its effective life is based upon the number of units it makes. A machine that manufactures metal screws, for example, may have a life expectancy of 10 million metal screws.

In this instance rather than using a time frame of years it might be more appropriate to depreciate the manufacturing plant by the number of metal screws produced each year. That is the basis is usage rather than time.

**Example:**

<table>
<thead>
<tr>
<th>Asset</th>
<th>Total Plant Capacity</th>
<th>Plant Cost</th>
<th>Depreciation Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manufacturing Plant – Sheet metal press</td>
<td>10 million metal presses</td>
<td>AUD$100,000.00</td>
<td>Usage</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year</th>
<th>Cost Price</th>
<th>Usage Pattern</th>
<th>Depreciation Annual</th>
<th>Accumulated Depreciation</th>
<th>Written Down Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1,000,000.00</td>
<td>1,000,000.00</td>
<td>10,000.00</td>
<td>10,000.00</td>
<td>90,000.00</td>
</tr>
<tr>
<td>2</td>
<td>3,000,000.00</td>
<td>30,000.00</td>
<td>40,000.00</td>
<td>60,000.00</td>
<td>40,000.00</td>
</tr>
<tr>
<td>3</td>
<td>5,000,000.00</td>
<td>50,000.00</td>
<td>90,000.00</td>
<td>10,000.00</td>
<td>Nil</td>
</tr>
<tr>
<td>4</td>
<td>1,000,000.00</td>
<td>10,000.00</td>
<td>100,000.00</td>
<td>Nil</td>
<td>Nil</td>
</tr>
</tbody>
</table>

*In all the above calculations the overall guiding principle should be to reflect in the books of the entity a true and fair value of the future benefits to the entity of the non current assets that they hold. That is select the method that is the most appropriate for the circumstances.*
How do you Depreciate Hand Tools?

A number of training institutions teaching technical skills may depreciate their hand tools over the length of a number of courses.
This is a slight variation to the usage pattern as discussed above. In this instance hand tools for example may be depreciated over the number of courses that the tools hold their effective life. This may result in the tools being depreciated in a time less than the normal definition of a non-current asset, that is less than twelve months.
It is feasible that tools may have an effective life of three or four courses and it is possible that the courses may be run under 12 months. In this instance it is quite acceptable to depreciate over the usage pattern of the number of courses.

It is stressed that the most appropriate method of depreciation is that which most reflects the effective life of the asset.

How do you Cost a Training Room?

For: Hiring a room to an outside organisation or for an institution costing the use of their own room.

Training Course Budgets when presented to funding agencies for financing should contain all direct and indirect costs, as these represent the full cost of the course.

The cost of providing the training room is an indirect cost that does not directly correlate to any specific activity or course, however, an appropriate cost for the use or “hire” of the room should be charged against each activity or course.

These costs can be calculated for:
  ● Privately owned institutions
  ● Government or community owned institutions.

There are two methods to calculate the cost:
  i. Depreciation Method
  ii. Market Value Method.

i. Depreciation Method

The value of the room could be calculated as a percentage of usage of the full-depreciated value of the building.

STEP 1

Determine the value of the building (replacement value of the building).
This can be determined by:
  ● Checking construction costs or
  ● If these costs are not available, getting a builder or valuer to quote on the replacement cost of the building.
STEP 2

Determine the amount of depreciation.
This may be specified in the countries tax laws. eg 3% per annum

STEP 3

Apportion the total depreciation for the year.

Example:
A training room is used to conduct a literacy training course for disadvantaged young people for 4 weeks, financed by UNESCO. There are 4 other training rooms plus office and administration areas in the institution.

The subject training room occupies 10% of the total internal space of the institution.

The training institution is valued at $500,000
3% (depreciation) of $500,000 = $15,000 (pa)

Training Room 10% of $15,000 = $1,500
1/12 (4 weeks) of $1,500 = $125

ie $125 cost for 4 weeks of use

ii. Market Value Method

This is the most likely method of calculating the cost of the room and equipment. (If costly equipment is provided, eg computers, the rent will be higher, the depreciation value of the computers could also be calculated).

When considering Market Value the following needs to be taken into consideration:

- The availability and cost of similar facilities
- Available rental information ie a renting or real estate agency may have rates for commercial rent
- The length of availability of other training rooms ie it may not be possible to rent other rooms for extended periods
- Varying rental rates eg institutions may give concessional rates to NGO’s
- Costs associated with room rental ie electricity, cleaning, administration, need to be calculated.

If there is a competitive market for training rooms, Market Value is likely to be the method used to calculate cost and price. See Toolkit Section A
What Record Keeping is needed?

Fixed Asset Register

There are numerous software packages available for tracking fixed assets and the subsequent calculation of the depreciation charge. The building of a relatively simple model in Microsoft Excel should also provide a suitable outcome. Outlined below is a suggested model:

<table>
<thead>
<tr>
<th>Description</th>
<th>Purchase Date</th>
<th>Cost AUD$</th>
<th>Additions</th>
<th>Opening WDV</th>
<th>Ann Dep</th>
<th>Dep Rate</th>
<th>Closing WDV</th>
<th>Accum Dep</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toyota XX</td>
<td>31/12/2002</td>
<td>10,000</td>
<td>8,000</td>
<td>2,000</td>
<td>20%</td>
<td>6,000</td>
<td>4,000</td>
<td></td>
</tr>
<tr>
<td>Mazda YY</td>
<td>31/12/2002</td>
<td>20,000</td>
<td>16,000</td>
<td>4,000</td>
<td>20%</td>
<td>12,000</td>
<td>8,000</td>
<td></td>
</tr>
<tr>
<td>Toyota ZZ</td>
<td>01/01/2004</td>
<td>10,000</td>
<td>2,000</td>
<td>20%</td>
<td>8,000</td>
<td>2,000</td>
<td>2,000</td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td>30,000</td>
<td>24,000</td>
<td>8,000</td>
<td></td>
<td>26,000</td>
<td>14,000</td>
<td></td>
</tr>
</tbody>
</table>

Financial Control Schedule

| Prior Year WDV 31/12/2003 | AUD$ 24,000 |
| Additions Year ending 31/12/2004 | 10,000 |
| (-) Current Year Depreciation 31/12/2004 | (8,000) |
| **Total Assets 31/12/2004** | **26,000** |

This should reconcile to what is booked on the general ledger under Fixed Assets Motor vehicles.

The depreciation amount reflects the expense booked in the general ledger for the 31/12/04. Once again the worksheet should reflect what is booked on the general ledger.

A new worksheet needs to be created for each asset category and the register provides the sub-ledger that substantiates the entry on the general ledger.

A manual schedule can be created along the same lines as discussed above. The important point is that you need to keep an itemised listing of all the assets that are classified as non current and as a result attract a depreciation charge.
A physical count every year is also important. In large training institutions assets are transferred between departments continually and it is possible that you lose contact with these assets. An item count annually overcomes this problem. The item count will confirm the fact that the asset physically exists. It is not uncommon for the assets of a training institution to be subject to damage, theft or misallocation. In any of the above the asset needs to be removed from the fixed asset register and the appropriate entries processed.

**Recommendation for Good Practise**

From a very conservative good housekeeping accounting point of view it is suggested that the depreciation expense be recorded monthly. Once again dependent on resources, complexity of the accounting equation and the information needs of the users of the reports, depreciation may be recorded monthly, quarterly or at worst once a year.

From a costing point of view it needs to be stressed that depreciation is not simply an accounting entry but a true cost to the company, as such depreciation needs to be factored into all costing and management reporting systems. If the depreciation cost is excluded wrong signals may easily be sent to management and the strategic decision making process may well be compromised.

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   9. End of Month Processes
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A Introduction

This Financial Manual has been developed to assist VET institutions adopt sound financial management standards and practices enabling them to operate in an effective and financially responsible manner and ensuring that these organisations meet their statutory obligations. Sound financial management practices through planning, controlling and evaluating the organisation’s financial performance should ensure the viability and growth of the organisation.

Ideally each VET institution should use commercially available accounting packages that will enable the financial transactions of the organisation to be recorded in a suitable manner and which will facilitate the production of the relevant financial reports such as the Balance Sheet, Profit & Loss Report and Cash Flow, these reports being essential to the monitoring of the financial performance of the organisation.

B Authority and Control

The Chief Executive Officer (General Manager) has overall responsibility for financial management and expenditure authorisation within the organisation on a day-to-day basis and must report to the Board of Management on a regular basis. Whilst the CEO is ultimately responsible for proper financial management, depending on the size of the organisation, a trained financial manager may be appointed to carry out the ongoing financial accounting tasks. To streamline ongoing running of the organisation the Board of Management may implement a system of delegated authorities whereby staff at different levels are authorised to make purchases on behalf of the organisation up to different values.

Ultimately the Board of Management is responsible for the financial performance of the organisation and achieves control by setting a budget at the commencement of the financial year and then measures the organisation’s performance against that budget on a regular basis. To achieve this The Board must ensure that it is provided with appropriate reports. These requirements are dealt with in detail under Accountability - Regular Reporting To Board/Management.
C The Essentials

1. Chart of Accounts

The Chart of Accounts or General Ledger is the base upon which the financial recording and reporting system is constructed. It is a listing of names or Accounts under which financial transactions can be recorded.

*Accounts* fall into five main categories: Assets, Liabilities, Equity, Revenue and Expenditure.

In simple terms Assets are what an organisation owns, Liabilities are what an organisation owes, Equity is the difference in value between Assets and Liabilities and represents the ownership or investment that “the owners” have in the organisation. Revenue is money received for the services that the organisation provides and Expenditure is the money spent providing those services.

a. Assets

Assets are generally categorised as Current and Non Current.

Current are those assets that represent cash such as bank accounts or those that are expected to be converted to cash within 12 months such as money that customers owe the organisation for the services provided e.g. Debtors.

Non Current (sometimes referred to as Fixed Assets) are assets which have a use or benefit to an organisation extending over a number of accounting periods and include things such as buildings, furniture and equipment owned by the organisation.

b. Liabilities

Liabilities are also generally categorised as Current and Non Current.

Current are those that represent the immediate or short-term debts of the organisation such as moneys that have not yet been paid but must be paid for expenditure incurred in providing services e.g. Creditors.

Non Current (also referred to as Long-term Liabilities) are debts which do not have to be discharged within the ensuing accounting year but instead are payable over a number of accounting periods such as the repayments on a loan acquired over a number of years for the purchase of buildings.

c. Equity

Normally when a business entity commences operation there will be some input of funds from “the owners” whether that be individual people or a sponsoring organisation. The transaction to record the initial input of funds would be Debit Bank Account and Credit Equity. This initial injection of funds is called Equity and is similar to Liabilities in that it represents a debt that the business owes, it is owed to “the owners”. After the initial injection of funds the main movements in Equity will be the transfer of the profit or loss to the Equity Account at the end of each financial year. If at any time “the owners” put additional funds in or draw funds out of the business these movements would occur in the Equity Account.
d. Revenue

Revenue or income for VET institutions will mainly come from the fees charged for training courses run by the organisation. Every endeavour should be made to separately record the revenue derived from each course conducted to facilitate the analysis of the financial performance of each course. Separation can be achieved by setting up new account numbers for each course. The revenue received will be reported on a regular basis through the Profit & Loss Report.

e. Expenditure

All spending of money that does not involve the acquisition of assets will be costed to Expenditure accounts and will be reported on a regular basis through the Profit & Loss Report. Similarly to the revenue any direct attributable Expenditure in respect of conducting each separate course should be costed against each course so that the financial performance of each course can be assessed. Separation can be achieved by setting up new account numbers for each course.

2. Budgets

The formulation of a budget should be an integral part of the financial management, planning and decision making process of the VET institution. The budget details what money is expected to be received from what sources and what money is to be spent on what items during the coming financial year. Prior to the commencement of each financial year a careful estimate should be prepared as to the expected revenues to be received and the expected expenditures to be outlaid for each of the Revenue and Expenditure accounts within the Chart of Accounts. If during the course of the year new courses are proposed to be held a budget should be prepared for each new course and added into the annual budget.

Any new capital acquisitions and the method of funding these should also be included in the budget. For example if a new training room is to be added to the facility and the construction is to be funded by borrowing money then a budget should be provided in Assets – Buildings and a budget in Liabilities – Borrowings.

The process of budget preparation and review will become more refined and useful as a management tool as it is used more often over the years.

3. Balance Sheet

The Balance Sheet is a statement of the financial position of an organisation at any point in time and shows the value of the assets, liabilities and equity of an organisation at that point in time. It acts as a link between accounting periods. Ideally the Balance Sheet should be produced at the end of each month and at the end of the financial year.

4. Profit & Loss Report

The Profit & Loss Report summarises the income received and the expenses incurred during a defined period, normally on a monthly basis. The Profit & Loss Report shows whether the organisation made a surplus or lost money during that period. Ideally the Profit & Loss Report should be produced at the end of each month and at the end of the financial year for the full year.
5. **Cash Flow**

The regular and accurate preparation of the Cash Flow is of paramount importance to the organisation particularly if the organisation is very restricted in the amount of cash available for day-to-day operations. An example of a Cash Flow is included in the Sample Templates.

It must be understood that profit is not the same thing as cash as an organisation can be profitable but still suffer significant cash difficulties. Organisations must be absolutely aware of what they are owed, what they owe and the likely timing of the receipt or payment of those moneys.

Integral to ensuring that a satisfactory cash flow is maintained is the diligent and timely collection of moneys owed to the organisation.

6. **Subsidiary Ledgers**

Apart from the General Ledger where all the costing transactions are recorded two additional or subsidiary ledgers must also be maintained. These subsidiary ledgers record what the organisation owes to others (Creditors Ledger) and what is owed to the organisation (Debtors Ledger).

a. **Creditors Ledger (Accounts Payable)**

A Creditor is an individual or organisation to whom your organisation owes money. The Creditors Ledger records the name and contact details of each creditor and what is owed by the organisation to each creditor and should record not only the value for each creditor but also how long the money has been owed. Normally the amounts owing are reported as outstanding on a monthly basis i.e. **Current** for the current month, 1-30 days for last month, 30-60 days for the month before last etc. If the amount outstanding in the 60-90 days or >90 days columns increases it is a clear indication that your organisation is experiencing cash flow problems and has not been able to meet its debts as they fall due. An example of a Creditors Ledger Listing Report is included in the Templates.

Transactions get into the Creditors Ledger when invoices or accounts are received from your suppliers for goods or services supplied to your organisation. The invoices are debited against the appropriate expense accounts in the General Ledger and credited to the Creditors Control Account in the General Ledger and also credited to the individual supplier’s account within the subsidiary ledger. When an account is paid the cheque is credited against the Bank Account in the General Ledger and debited against the Creditors Control Account in the General Ledger and also debited to the individual supplier’s account within the subsidiary ledger. At the end of each month any amounts unpaid are rolled into the next older column outstanding, this “ages” the debt. e.g. unpaid amounts in **Current** will roll into 1-30, 1-30 will roll to 30-60 and so on.
b. Debtors Ledger (Accounts Payable)

The Debtors Ledger works in exactly the same way as the Creditors Ledger except it deals with money that is owed to your organisation. If the amounts owing in the 60-90 or >90 days columns increase it means that you are not doing a good job in collecting money owed and that you will create cash flow difficulties and not be able to pay your creditors as they are due. Transactions get into the Debtors Ledger when you issue invoices (bills) to your customers. You will credit the appropriate income accounts in the General Ledger and debit the Debtors Control Account in the General Ledger and also debit the individual customer’s account in the subsidiary ledger. When money is received from your customers the Bank Account is debited and the Debtors Control Account is credited and also the individual customer accounts are credited in the subsidiary ledger. As with the Creditors Ledger any accounts unpaid at the end of the month are rolled into the next older column.

7. Depreciation

Depreciation of assets refers to the writing down of the value of assets as their useful life is used. This ensures that each year the costs of the operation of the organisation are fully expensed and reported by way of the Profit & Loss Report. The rate of depreciation will vary depending on the nature of the asset and the taxation and accounting standards requirements applicable to each country. For example if it was determined that the useful life of a motor vehicle was 10 years then 10% or 1/10\textsuperscript{th} of the value of the vehicle would be depreciated and written off against expenditure each year. Buildings may be assessed to have a life of 50 years and therefore will be depreciated at 2% per year while computer equipment may be assessed to have a life of 4 years and will therefore be depreciated at the rate of 25%. There are two common methods of depreciation, prime cost or straight line depreciation where an equal amount of the original purchase price is written off each year and the diminishing value method whereby the amount to be written off each year is based on the depreciated value from the previous year.

For example if an asset was purchased for $100 and it was determined that it should be depreciated at a rate of 10% then the two different methods would be as follows:

**Prime Cost:**
- Year 1 - 10% of $100 = $10 Written Off - Depreciated Value $90
- Year 2 - 10% of $100 = $10 Written Off - Depreciated Value $80
- Year 3 - 10% of $100 = $10 Written Off - Depreciated Value $70

**Diminishing Value:**
- Year 1 - 10% of $100 = $10 Written Off - Depreciated Value $90
- Year 2 - 10% of $ 90 = $ 9 Written Off - Depreciated Value $81
- Year 3 - 10% of $ 81 = $ 8 Written Off - Depreciated Value $73
The ideal for any organisation if they have an adequate cash flow is to actually put aside annually in a reserve fund the cash equivalent of the depreciation amount so that at the end of the useful life there are funds available to replace the asset. In reality very few organisations do have the surplus funds or the discipline to set aside a cash reserve and in most instances borrow money to fund new asset purchases.

8. **On Costs**

In order to facilitate the budgeting and assessment of economic viability of courses or programs so far as possible any costs attributable to a particular course or program should be costed to that program. Direct costs such as the wages of the employees conducting the course or specific course material are easy to allocate, however, there are many costs incurred without which the course could not be conducted that cannot be directly attributed. These costs are referred to as On Costs and they should be allocated to courses on a reasonable pro rata basis. For example the monthly Workers Compensation Insurance premium could be allocated in proportion to the specific course wages paid compared to the total wages paid for that period. The monthly rental of training accommodation could be broken down to an hourly rate and allocated on the basis of the number of hours used for each specific course. Electricity charges could be allocated on a similar basis.

9. **End of Month Processes**

a. **Bank Reconciliation**

At the end of each month a reconciliation should be done between the ledger and a bank statement provided by the organisation’s bank. This is a process of comparing deposits made into the bank with revenue received and recorded in the ledger and comparing withdrawals made from the bank account, normally by drawing cheques, and the expenditure recorded in the ledger. This process will highlight any transactions that have not been recorded in the ledger, ensure that no incorrect transactions have been processed to the bank account by the bank and detail any transactions that have been recorded by the organisation but that have not yet been applied to the bank account e.g. cheque drawn but not yet presented.

b. **Employees Leave Entitlements (ELE) Calculation**

One of the actions that should be undertaken each month prior to the preparation of the Profit & Loss Report is the calculation of employees leave entitlements. Where employees of an organisation have an entitlement to some form of paid leave such as annual leave or long service leave the value of that leave must be calculated at the end of each month and an adjustment made for the movement in the leave during the month. If the value of the leave has increased then the increase in value must be debited to the expense account Employees Leave and credited to the liability account Employees Leave Entitlements and vice versa if a decrease in value.
c. **Calculation of Depreciation**

Depreciation of assets should be calculated and posted to the general ledger each month so that the expense will appear in the monthly Profit & Loss Report and Balance Sheet. *See 7. above for details of calculation of depreciation.*

d. **Allocation of On Costs**

Each month a calculation of the applicable on costs should be made and allocated to each of the appropriate courses or programs. The basis of allocation will depend on the nature of the costs. *See 8. above for details of allocation of on costs.*

e. **Balancing of Subsidiary Ledgers**

Each month a reconciliation between the Creditors and Debtors ledgers should be made to their respective control accounts in the General Ledger. The total value of each of the subsidiary ledgers must always equal the value of their control accounts.

10. **Debt Recovery and Bad Debts**

a. **Debt Recovery**

It is essential that all VET institutions have in place a regular procedure for the follow up and recovery of moneys owed to the organization. Each month after the Debtors Ledger has been rolled forward an examination should be made of the amounts owed by each customer/client. Statements can be issued to each customer drawing their attention to the amount that they owe. Any amounts that have been outstanding for more than 2 months and are therefore appearing in the 60-90 or >90 days columns should be viewed as matters for concern and requiring specific attention to ensure that they are paid by the customers without further delay. The actual recovery process will be a matter for each VET institution to determine depending on the local conditions but would typically involve direct contact with the customer by telephone followed up if necessary by written advice including if deemed appropriate a threat to take legal action for recovery. VET institutions should develop their own policy and procedure regarding the timing and steps involved in their debt recovery process.

b. **Provision For & Writing Off of Bad Debts**

Inevitably all VET institutions will at some time identify outstanding debts that are likely to be irrecoverable and therefore a provision should be made for their probably write off. There are also those debts that definitely cannot be recovered and therefore have to be written off.

- Ideally bad debts should be written off in the financial year in which the invoice and therefore the income was originally raised although debts are not generally considered to be bad unless they are outstanding for more than 6 months. Normally an adjustment note (this is the reverse of an invoice) would be raised and it would be debited against an expense account *Bad Debts Written Off* and credited to *Trade Debtors* and the relevant individual customer account in the debtors subsidiary ledger.
Some bad debts carry over from one financial year to the next. At the end of each financial year a close examination should be made of all outstanding debtors to determine the likelihood of their recovery. If it is determined that some debts are highly unlikely to be paid then what is known as a *provision* is set up. This is done by debiting an expense account *Doubtful Debts* and crediting an asset account *Provision For Doubtful Debts*. This account is normally located in the Chart of Accounts immediately below the *Trade Debtors* account and is really a negative asset account. The effect of this transaction is to match the doubtful debt with the income that it raised in the relevant financial year and the net result flows through to the Profit & Loss.

If it is subsequently determined that the debts for which the provision was set up should be written off then *Trade Debtors* will be credited and *Provision For Doubtful Debts* will be debited. This will reduce the balance of the *Trade Debtors* and eliminate the *Provision*.

The annual examination of debtors may result in a requirement to reduce the amount of the provision for doubtful debts. This could arise when debts that were considered to be doubtful are ultimately paid. In this circumstance the year end entry will be to debit the *Provision For Doubtful Debts* asset account and credit the *Doubtful Debts* expense account. This will have the effect of reducing the expenditure for the year and will flow through to the Profit & Loss.

**D Policies**

Each VET institution should develop policies so that their staff and their customers know and understand what actions will be taken when particular circumstances arise. Attached to the Manual is an example of some financial policies and procedures.

**Distribution of Profits**

The policy regarding the distribution of profits will very much depend on the nature of the organisation and how it was originally funded. Was it privately financed, were government funds involved and if so were there any conditions attached to the funding? This policy is one that has to be determined by each VET. Other *Sample Financial Policies* are attached.

**E Staffing/Payroll Obligations**

Organisations must ensure that staff are employed and paid in accordance with local industrial regulations and requirements and that taxes, superannuation and other statutory or voluntary payroll deductions from employees are remitted to the appropriate authorities. Each month a calculation should be done to determine the change in the liability of the organisation for employee leave entitlements. *Refer to Employees Leave Entitlements (ELE) Calculation 9. b. above.*
F  Accountability

a. Regular Reporting To Board/Management
Accurate and up to date financial records must be maintained to ensure that the decision making processes are based on sound information and enable regular evaluation to be made of the organisation’s financial state. These accurate records must be compared and reviewed on a regular basis against the budgets prepared at the beginning of the year. Financial reports including Balance Sheet, Profit & Loss and Cash Flow should be provided to the Board on a quarterly basis. Circumstances may dictate that this should be done more frequently such as on a monthly basis. Certainly these reports should be prepared for review by senior management on a monthly basis. The Profit & Loss should include a column containing the budget figures so that a comparison can be made against the actual results to track how the organisation is performing. If this comparison shows accounts for which there are wide discrepancies between the budget and actual results the Board is in a position to seek explanations from the CEO and if necessary take corrective action.

b. Audit
The Organisation’s Financial Records should be audited annually by suitably qualified accounting professionals in accordance with local laws and regulations relating to VET institutions. If there are no such requirements it is still highly desirable that an audit is conducted so that all stakeholders can have confidence that all financial aspects of the organisation’s financial management have been conducted in a correct and competent manner.

c. External Reporting Requirements
Each VET institution will have external financial reporting requirements, some imposed by regulations governing their operations while others will be imposed by funding organisations as conditions for providing grants, loans and other types of funding to support the organisation’s operations.

Any documentation provided by funding providers should be checked closely to determine any reporting obligations so that accounting structures can be put in place before the commencement of the project to ensure that the reporting obligations can be met without the need for extensive work to be undertaken after the event to try to meet the obligations. Poor preparation and a lack of knowledge of the reporting obligations could place the funding in jeopardy.

G  Taxation Issues
VET institutions are obliged to understand what their taxation reporting and payment requirements are in accordance with the applicable laws operating within their own countries and respond accordingly.

H  Sample Templates Attached
a  Assets Register/Depreciation Schedule
b  Cash Flow
c  Creditors (Accounts Payable)
d  Debtors (Accounts Receivable)
I Sample Financial Policies
1.1 Expenditure Authorisation
1.2 Authorisation to Tender, Quote and Apply For Funding
1.3 Operation Of Bank Accounts and Electronic Funds Transfer
1.4 Petty Cash Control
1.5 Receiving/Depositing/Requesting Money, Cheques and Vouchers
1.6 Purchase, Use and Disposal of Assets
1.7 Financial Reports
1.8 Ordering/Goods Received
1.9 Refunding of Participants Fees
1.10 Fraud Control
## a. Assets Register/Depreciation Schedule

**Asset Classification:** Plant & Equipment  
**Period:** Full Financial Year 2003-2004

<table>
<thead>
<tr>
<th>Asset Code</th>
<th>Description</th>
<th>Acquisition/Disposal Date</th>
<th>Original Cost</th>
<th>Opening Written Down Value (WDV)</th>
<th>Additions/Disposals</th>
<th>Profit (Loss) On Sale</th>
<th>Depreciation %</th>
<th>Depreciation Method</th>
<th>YTD Depreciation</th>
<th>Closing WDV</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>B</td>
<td>D</td>
<td>E</td>
<td>F</td>
<td>G</td>
<td>H</td>
<td>I</td>
<td>J</td>
<td>K</td>
<td>L</td>
</tr>
<tr>
<td>1</td>
<td>Computer</td>
<td>1/07/2001</td>
<td>2,000</td>
<td>1,200</td>
<td>20</td>
<td>P</td>
<td>400</td>
<td>800</td>
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<td></td>
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<tr>
<td>2</td>
<td>Digital Camera</td>
<td>1/07/2002</td>
<td>1,000</td>
<td>800</td>
<td>20</td>
<td>P</td>
<td>200</td>
<td>600</td>
<td></td>
<td></td>
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<tr>
<td>3</td>
<td>Photocopier</td>
<td>12/02/2003</td>
<td>5,900</td>
<td></td>
<td>20</td>
<td>P</td>
<td>448</td>
<td>5,452</td>
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<td>Total</td>
<td></td>
<td></td>
<td>3,000</td>
<td>2,000</td>
<td>5,900</td>
<td>1,048</td>
<td>6,852</td>
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</table>

**Fixtures & Fittings**

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<tr>
<th>Asset Code</th>
<th>Description</th>
<th>Acquisition/Disposal Date</th>
<th>Original Cost</th>
<th>Opening Written Down Value (WDV)</th>
<th>Additions/Disposals</th>
<th>Profit (Loss) On Sale</th>
<th>Depreciation %</th>
<th>Depreciation Method</th>
<th>YTD Depreciation</th>
<th>Closing WDV</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Carpet</td>
<td>1/07/2001</td>
<td>2,000</td>
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<td>20 PC</td>
<td>400</td>
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</tr>
<tr>
<td>2</td>
<td>Air Conditioning</td>
<td>1/07/2002</td>
<td>1,000</td>
<td>700</td>
<td>30 DV</td>
<td>210</td>
<td>490</td>
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<tr>
<td>3</td>
<td>Back gate</td>
<td>1/01/2003</td>
<td>4,000</td>
<td></td>
<td>20 PC</td>
<td>402</td>
<td>3,598</td>
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<td>Total</td>
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<td></td>
<td>3,000</td>
<td>1,900</td>
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<td>4,888</td>
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</table>

**Total Assets**

|                |                |                            | 6,000         | 3,900                            | 9,900               | 2,060                 | 11,740          |                     |                 |             |
### b. Cash Flow

<table>
<thead>
<tr>
<th>Expected Inflows/Outflows</th>
<th>Week 1</th>
<th>Week 2</th>
<th>Week 3</th>
<th>Week 4</th>
<th>Week 5</th>
<th>Week 6</th>
<th>Week 7</th>
<th>Week 8</th>
<th>Week 9</th>
<th>Week 10</th>
<th>Week 11</th>
<th>Week 12</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Inflows</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Debtor Payments</td>
<td>$3,500</td>
<td>$4,800</td>
<td>$3,450</td>
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<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Other Direct Income</td>
<td>$200</td>
<td>$750</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grants Received</td>
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<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td><strong>Total Inflows</strong></td>
<td>$3,700</td>
<td>$11,050</td>
<td>$3,450</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
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<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td><strong>Outflows</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Payroll</td>
<td></td>
<td></td>
<td></td>
<td>$7,500</td>
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<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Creditor Payments (Cheques Drawn)</td>
<td>$8,100</td>
<td>$3,300</td>
<td>$1,500</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Taxes Remitted</td>
<td></td>
<td>$2,500</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Superannuation Remitted</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$1,250</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Payments</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$500</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total Outflows</strong></td>
<td>$8,100</td>
<td>$14,550</td>
<td>$2,000</td>
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<td>$0</td>
<td>$0</td>
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<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td><strong>Net Movement</strong></td>
<td>-$4,400</td>
<td>$3,500</td>
<td>$1,450</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
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<td>$0</td>
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</tr>
<tr>
<td><strong>Balance Brought Forward</strong></td>
<td>$10,000</td>
<td>$4,300</td>
<td>$2,500</td>
<td>$4,250</td>
<td>$0</td>
<td>$0</td>
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<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
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<tr>
<td><strong>Anticipated Position</strong></td>
<td>$5,600</td>
<td>$800</td>
<td>$3,950</td>
<td>$4,250</td>
<td>$0</td>
<td>$0</td>
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<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td><strong>Actual Bank Balance</strong></td>
<td>$4,300</td>
<td>$2,500</td>
<td>$4,250</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>
c. Accounts Payable

As At 30 September 2004

<table>
<thead>
<tr>
<th>Supplier</th>
<th>Current</th>
<th>1 - 30</th>
<th>31 - 60</th>
<th>61 - 90</th>
<th>&gt; 90</th>
<th>TOTAL</th>
</tr>
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<tbody>
<tr>
<td>ABC Business</td>
<td></td>
<td>33</td>
<td></td>
<td></td>
<td></td>
<td>33</td>
</tr>
<tr>
<td>(Supplier 2)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>XYZ Business</td>
<td>500</td>
<td></td>
<td></td>
<td></td>
<td>75</td>
<td>75</td>
</tr>
<tr>
<td>(Supplier 3)</td>
<td></td>
<td></td>
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<td></td>
<td>500</td>
</tr>
<tr>
<td>(Supplier 4)</td>
<td></td>
<td>499</td>
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<td></td>
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<td>499</td>
</tr>
<tr>
<td>(Supplier 5)</td>
<td></td>
<td>650</td>
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<tr>
<td>(Supplier 6)</td>
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<td>199</td>
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<td>199</td>
</tr>
<tr>
<td>(Supplier 7)</td>
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<td>500</td>
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<tr>
<td>(Supplier 8)</td>
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<td>378</td>
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<td>(Supplier 10)</td>
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<td>584</td>
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<tr>
<td>(Supplier 11)</td>
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<td>295</td>
<td>295</td>
</tr>
<tr>
<td>(Supplier 12)</td>
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<td>2728</td>
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<td></td>
<td></td>
<td>2728</td>
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<td>(Supplier 13)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1194</td>
<td>1194</td>
</tr>
</tbody>
</table>

**TOTAL** | 5079 | 1119 | 500 | 1194 | 75 | 7967

---

d. Accounts Receivable

As At 30 September 2004

<table>
<thead>
<tr>
<th>Customer</th>
<th>Current</th>
<th>1 - 30</th>
<th>31 - 60</th>
<th>61 - 90</th>
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**TOTAL** | 6520 | 595 | 250 | 1340 | 2700 | 11405
SAMPLE FINANCIAL POLICIES AND PROCEDURES

1.1 EXPENDITURE AUTHORISATION

1.1.1 Staff approved by the General Manager can authorise expenditure up to $100 on any one purchase.

1.1.2 The Senior Administration Officer can authorise expenditure up to $500 on any one purchase, with the General Manager’s approval.

1.1.3 The General Manager, in consultation with the executive can authorise expenditure up to $5,000 on any one purchase.

1.1.4 Expenditure over $5,000 and up to $10,000 on any one purchase requires authorisation by the Treasurer.

1.1.5 Expenditure over $10,000 on any one purchase requires authorisation from the Committee.

1.1.6 The Committee is to be provided with monthly reports on expenditure over $5,000 on any one purchase.

1.1.7 All expenditure authorisation must occur prior to purchase.

1.1.8 All expenditure must be coded and signed by authorised staff, using the VET Organisation's order forms and/or cheque requisitions.

1.2 AUTHORISATION TO TENDER, QUOTE AND APPLY FOR FUNDING

1.2.1 The General Manager has authorisation to submit tenders, quotes and applications for funding up to $50,000.

1.2.2 Treasurer approval is required prior to submitting tenders, quotes and applications for funding over $50,000 and up to $100,000.

1.2.3 Committee approval is required prior to submitting tenders, quotes and applications for funding over $100,000.

1.2.4 In this section, tenders, quotes and application for funding exclude participants training wages.
1.3 OPERATION OF BANK ACCOUNTS AND ELECTRONIC FUNDS TRANSFER

1.3.1 The following persons are authorised to operate the VET Organisation’s bank accounts and authorise payment through electronic funds transfer: President, Treasurer, Secretary and General Manager.

1.3.2 Operation of bank accounts includes signing cheques, withdrawing money, and transferring money between accounts. The approved combination in all cases is either two Committee members, or Committee and staff member.

1.3.3 The process for transfer of funds is approval by the General Manager and a Management Committee member.

1.4 PETTY CASH CONTROL

1.4.1 All Petty Cash held by the VET Organisation is to be controlled by the Senior Administration Officer and locked in the safe for safe keeping.

1.4.2 Requisitions for the Petty Cash reimbursement are to be authorised by the General Manager or Senior Administration Officer.

1.5 RECEIVING/DEPOSITING/REQUESTING MONEY, CHEQUES AND VOUCHERS

1.5.1 Receipts are to be issued for all incoming money.

1.5.2 The Senior Administration Officer is responsible for depositing all money.

1.5.3 Requests for cash/cheques/vouchers for payments are to be handed to the Senior Administration Officer accompanied by an appropriate invoice, cheque or voucher requisition, properly completed by 4:00 pm on Tuesdays if payment is required in that week (exception will be made for urgent payment).

1.6 PURCHASE, USE AND DISPOSAL OF ASSETS

1.6.1 Details of any assets with a purchase price of $100 or more need to be forwarded to the Senior Administration Officer for recording on the Assets Register immediately following purchase.

1.6.2 The General Manager only has authority to dispose of assets with a purchase price of $2,500 or less.

1.6.3 Treasurer approval is required before disposing of assets with a purchase price of over $2,500 and up to $5,000.
1.6.4 Committee approval is required for disposal of assets with a purchase price over $5,000.

1.6.5 General Manager approval is required for use of the VET Organisation’s assets outside normal working hours and/or outside the VET Organisation’s operational sites.

1.6.6 Assets cannot be removed from VET Organisation premises and/or used for private use. It must be remembered that assets are not covered by insurance when not in use for project business. Any breakdown or malfunctioning of assets should be reported to the General Manager.

1.6.7 Computers cannot be removed from VET Organisation premises and/or used for private use. It must be remembered that computers are not covered by insurance when not in use for project business. When a breakdown or malfunction of a computer occurs the Computer Error Message Report form must be completed and returned to the Senior Administration Officer. The SAO will give all such Error Messages to the Information Technology Contractor who will maintain the breakdown or malfunction. Maintenance of the computer breakdown or malfunction is recorded in the Computer Maintenance book by the Information Technology Contractor. The Computer Maintenance book is held in the Accounts Office.

1.7 FINANCIAL REPORTS

1.7.1 Financial reports detailing the VET Organisation’s financial position are to be prepared by the Senior Administration Officer for each Committee meeting or as required.

1.7.2 The reports are to consist of a Balance Sheet, a Profit and Loss Report and a Cash Flow covering all of the VET Organisation’s financial activities and are to be completed in a format approved by the Committee.

1.7.3 The reports are to be made available to the General Manager and Treasurer no later than seven days prior to each Committee meeting or as required.

1.8 ORDERING/GOODS RECEIVED

1.8.1 All goods and services purchases are to be preceded by a purchase order. All purchase orders must be authorised and signed in the first instance by the General Manager or by a Committee Member.

All suppliers are aware of our ‘No order, no purchase’ policy. Goods are generally delivered via reception and are usually accompanied by an invoice or delivery docket.

All items need to be ticked off the invoice by the staff member attending reception to be sure that all goods listed on the invoice have in fact been received and is correct, the invoice is to be initialled in the top left hand corner and any discrepancies noted. The invoice is then passed to the Senior Administration Officer for payment.
1.9  REFUNDING OF PARTICIPANTS FEES

1.9.1 OBJECTIVE: To ensure that any fee-paying customer of a training course being conducted by VET Organisation will receive a refund under circumstances fair to both parties.

1.9.2 POLICY STATEMENT: If a fee has been charged to customers to undertake a particular training course with VET Organisation then the following refund policy will apply:

1.9.3 A customer who cancels before three working days of commencement of the course will receive a total refund less a 10% administration charge (deposit)

1.9.4 A customer who cancels within three working days of the commencement of the course and is able to be replaced by another customer will receive a full refund less 10% administration charge.

1.9.5 No refund will be available if a cancellation occurs within three working days of the course commencing and no replacement customer is found.

1.9.6 In the event of a cancellation during the first half of the course due to extreme personal situation eg: family bereavement, extended illness, placement on a subsequent course or a credit note will be negotiated with the General Manager. You must put your application for a refund in writing.

1.10  FRAUD CONTROL

1.10.1 Fraud is the use of deceit, trickery or sharp practice to gain an unfair or dishonest advantage.

1.10.2 Fraudulent acts include acts of omission, making false statements, falsification or manipulation of records and breaches of trust and confidence.

1.10.3 Fraud can either result in loss of funds, misuse of assets or the loss of an advantage.

1.10.4 Fraud can involve people outside the organisation such as:

- Invoices for goods or services not received
- Provision of goods and services by friends or family of staff, using inside information or at non-commercial prices
- Preferential payment terms given
- Claims by clients to obtain/maintain benefits
1.10.5 Fraud can also involve people employed or directly involved in organisations such as:

- Borrowing funds which is the most frequently committed fraud
- False receipts
- False expense claims
- False travel claims
- Ghosting (paying by cheque for non-existent sessional trainers)
- Use of signed blank cheques to make payments for non-organisation purposes
- Payment of personal expenses.

1.10.6 The use of organisation property can also be fraudulent as follows:

- Long distance personal phone calls
- Use of organisational computers for personal gain
- Use of sales tax exemption
- Unauthorised use of organisation vehicles for private use
- To improve personal property such as the employees own premises.

1.10.7 Fraud can arise from staff failure to perform their duties:

- Failure to identify or record a false statement by a client where the client stands to gain a payment
- Recording false date for individual gain
- Providing inside or confidential information
- Deliberately destroying organisation records
- Manipulating or falsifying statistics to avoid criticism or a reduction in funding
- Manipulation of data to falsely present successful organisation outcomes.

1.10.8 CONCEALING A FRAUD IS COMMITTING A FRAUD

1.10.9 Management Procedure

a. Financial procedures, responsibilities and limitations are specified in the Policy Manual
b. A regular review of systems and procedures is conducted by the Senior Administration Officer, General Manager, Auditor and Treasurer
c. All payments are authorised before payment using cheque requisitions. Cheques are countersigned by a Committee Member
d. Cash transactions are kept to a minimum. Accounts have been opened to reduce the need for petty cash
e. Only small amounts of cash are left on the premises in a safe
f. Monthly reconciliation and computer print outs for each project are compiled with bi-monthly financial accounts presented to the Management Committee
g. Budgets and spending to budget is reviewed regularly with the co-ordinator of each project and the General Manager
h. All projects are audited, whether required by external funding providers or not. The organisation is audited annually in accordance with the appropriate regulations.
i. A system has been established for ensuring the building is secured at the end of the day. A security company visits each night and an alarm system is installed.
1.10.10 Procedure if you suspect or discover fraud

a. Report the matter to the General Manager unless he may be involved, in which case report it to the Management Committee
b. Do not attempt to carry out your own investigation as such action may jeopardise due legal processes
c. Do not jump to conclusions but observe and note the circumstances
d. Do not make assumptions
e. Do not discuss it outside the organisation or Management Committee
f. Assess the magnitude of the fraud and its impact on the organisation
g. If it has a minor impact, the infringement may be handled within the organisation
h. The General Manager will decide what disciplinary action is appropriate
i. If it has a critical impact on the organisation, the Management Committee is to be advised immediately. You may also have to advise the police if instructed by the Management Committee
j. If legal proceedings have commenced do not discuss the situation in any way in public, or even informally with colleagues as this may prejudice the legal proceedings.

J Costing the use of a Machine

Factors to Consider

1. Life & Utilisation of the machine
It is necessary to have a good understanding of the likely operating life and utilisation of the machine so that calculations can be made concerning the recovery of the capital cost of the machine.

2. Capital Cost of the machine
The capital cost of the machine including the financing cost must be known and in conjunction with the estimated utilisation (total operational hours for the machine over its life) used to calculate that part of the hourly rate.

3. Servicing & Repairs
Servicing intervals will generally be known (quite often required servicing intervals are based on the hours of operation of the machine) and a best estimate should be made of the likely costs involved and related to the operational hours. Repairs will tend to be minimal when the machine is new but increase as the machine ages and an allowance should be made in the hourly rate for these costs.

4. Consumables
The cost of consumables required to operate the machine such as perhaps fuel, oil, filters, blades have to be factored into the hire rate.

5. Admin Overheads
An allowance should be made for any administrative overheads associated with owning and operating the machine such as insurance premiums, registrations and certifications etc.
6. **Profit Margin**
A decision will have to be made about the profit margin that will be applied to the hire rate. This would normally be a % applied to the rate calculated using the factors above.

7. **Operator – cost included or excluded**
The issue of whether or not to include the cost of the operator as part of the hourly rate or to have separate rates for the operator and the machine will depend on whether the machine is always hired with an operator.
The direct costs of the operator are simple to determine but a decision will need to be made about what overheads and profit margin should be applied. There could be expenses such as workers compensation insurance premiums that should be taken into account.

8. **Market rates**
Having calculated an hourly rate taking into account the types of factors outlined above it still must be realised that in a competitive market the actual hourly rate will be determined by the prevailing market rates. The above exercise will, however, give you a good indication of whether the market rates are realistic and whether you will make a profit hiring the machine.
### Manual for Costing and Pricing VET Products and Services - Part I

**VET Manual - Template For Costing Of Hourly Machine Rate**

**Life & Utilisation**
- Estimated Life: ___________ Years
- Estimated Annual Operation: ___________ x ___________ Hours
- Estimated Life of Machine: ___________ Utilisation

**Capital Cost**
- Cost of Machine: ___________
- Total Finance Costs: ___________

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<td>Estimated Annual Operation</td>
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<td>Estimated Life of Machine</td>
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**Hourly Rate**

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<th></th>
<th>Hourly Rate</th>
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</thead>
</table>
| Capital Cost | ___________
| Cost of Machine | ___________
| Total Finance Costs | ___________

**Repairs & Servicing**
- Servicing: ___________
- Repairs: ___________

**Consumables**
- Fuel: ___________
- Oil: ___________
- Filters: ___________
- Blades: ___________
- etc: ___________

**Administration Overheads**
- Allowance: ___________

**Profit Margin**
- Allow percentage: ___________%

**Operator**
- Base Hourly rate of pay: ___________
- Superannuation: ___________%
- Other Allowance 1: ___________
- Other Allowance 2: ___________

**Overheads & Profit Margin**
- %: ___________

**Hire Rate Without Operator**
- ___________ Rate 1

**Hire Rate With Operator**
- ___________ Rate 1 + Oper.
# VET Manual - Worked Example For Costing Of Hourly Machine Rate

## Life & Utilisation

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<td>Hours</td>
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## Capital Cost

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<tr>
<td><strong>Total</strong></td>
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## Repairs & Servicing

| Servicing | $7.00 |
| Repairs | $4.00 | **$11.00** | D |

## Consumables

| Fuel | $6.00 |
| Oil | $1.25 |
| Filters | $0.50 |
| Blades | $0.25 |
| etc | |
| **Total** | $8.00 | E |

## Administration Overheads

| Allowance | $3.00 | **$3.00** | F |
| **Sub Total** | **$32.00** | C+D+E+F |

## Profit Margin

| Allow percentage | 25% | **$8.00** |
| **Sub Total + Profit** | |

| **Hire Rate Without Operator** | **$40.00** |
| **Rate 1** | |

| Base Hourly rate of pay | $10.00 |
| Superannuation | 5% | $0.50 |
| Other Allowance 1 | $1.00 |
| Other Allowance 2 | $0.50 |
| **Sub Total** | **$12.00** |

| Overheads & Profit Margin | 25% | **$3.00** |
| **Oper.** | |

| **Hire Rate With Operator** | **$55.00** |
| **Rate 1 + Oper.** | |
9. Pricing Methods

Introduction

Product pricing is the flip side to product costing. There are two popular approaches:

i. Cost Based pricing
ii. Demand based pricing.

It needs to be stressed that product pricing is not simply a matter of estimating unit cost, building in a profit margin and calculating the price. Issues such as consumer demand and the competitive environment are frequently more significant.

The purpose of this paper is to address these questions and put forward recommendations.

What is in this section of the manual?

- Description of the various pricing environments
  In this section an outline of the various economic pricing models will be given, outlining the pitfalls of the various models for training institutions

- Description of the two most popular pricing approaches
  Cost based and demand based pricing are fully explained in the context of training institutions

- Recommendation as to which pricing approach is best
  The strength and weaknesses of both models are analysed and a recommendation is made.

Pricing Environments

Profit Making Training Institutions

As mentioned in the introduction, pricing is not exclusively limited to calculating the unit cost and then building in a profit margin, if you are a profit making institution, other factors play a significant role. The market within which you operate is also significant and can have a strong bearing on any pricing decisions.

That is the pricing decision under a monopoly market (no directly competing product in the market) will vary from that of a monopolistic market (many sellers of similar but not identical products). In between these two market models is an oligopoly (a market in which a few large sellers occupy a large share of the market).
In a monopoly market the training institution has no direct competition, as a result there is a degree of freedom to charge what the market could carry. In this instance, with no competition, the opportunity to make abnormal profits through inflated pricing is very real. However, according to economic theory under normal market conditions it would only be a short time before new entrants entered the market and undermined the monopoly market, resulting in the competitive advantage that the training institution holds disappearing. The end result is that the abnormal profit margin would be eroded and the now competitive market would reduce prices to normal levels.

With a monopolistic market no single seller has a large enough share of the market to permit competitors to identify the effects of the pricing decision on the sales of the training courses. In this instance pricing decisions will not initiate a retaliatory response from the competitors.

Under an oligopoly the pricing decision depends on the reaction of the competitors to the changes in the selling price. A training institution in an oligopolistic market must be very price sensitive regarding its product pricing as an incorrect decision may well result in the customers of the training institution drifting off to the competition.

In this instance the competitors may well match any price reductions, however, they may not follow any price increase, and the training institution may well price itself out of the market.

In all these instances the simple costing plus a margin is significantly influenced by outside factors.

No matter what the market structure the training institution must consider the long-range implications of the prices on volume and on the growth of competition.

Non Profit Institutions

The pricing decision for a not for profit training institution is a little easier in that the long term viability of the organisation is not dependent on the generation of profits. There is not the need to compensate the investors in the training institutions for the use of their funds.

However there are still pricing decisions that need to be made as the organisation attempts to break even. In this instance the same constraints under which profit making training institutions operate will apply to not for profit companies.

Pricing Methods

There are two popular pricing methods:

i. Cost based pricing
ii. Demand based pricing.
i. Cost Based Pricing

Total cost pricing

Total cost based pricing is where the cost of an activity is used to determine its price. Total cost pricing is the sum of direct costs and indirect costs. Direct costs are those costs that can be directly attributed to the activity that is under consideration.

Indirect costs are those costs that by their nature cannot be directly attributed to an activity but are essential in the operation of that activity. Indirect costs are incurred for the benefit of more than one activity or they are individually too small to be traced readily to a costing activity.

Even with elaborate accounting systems the allocation of indirect costs is at best arbitrary. The end result is that any pricing based upon total cost pricing needs to be reviewed constantly, and monitored closely, as in all likelihood there has been an arbitrary allocation of costs.

Where a training institution is a profit making organisation, a profit margin is built into the costing to generate this profit.

In a not for profit organisation a training institution uses the costing excluding the profit margin as the basis for the pricing. In this instance the not for profit organisation will break even and its goal is not to make a profit or loss. As such its goal is to cover its total costs.

Examples where total cost pricing is used on a cost objective can be individual courses, complete training programs, quality improvement projects or institutional departments.

Marginal cost pricing

Marginal cost is the additional cost caused by an additional or new activity. Formally marginal cost is defined as the added cost that results from the production of one additional unit of output per unit of time.

“The marginal costs of an activity are usually considered to be the sum of the variable costs. Examples of marginal cost pricing are costs of a new course, costs of additional students in a class, costs of a new training program, costs of a project”.

It is generally considered that marginal costing is a short-term concept and is not considered appropriate for long term planning. Marginal costing can be utilised for calculating the cost of courses outside the regular institutional program.

5. Jägger: op cit n4, Page. 9 (Adapted)
ii. Demand Based Pricing

Demand based pricing is where the market determines the price that the training institution can charge for its activity. The premise here is that market information is freely available to all participants in the market. This is effectively an unreal assumption in the real world and as a result variations on the theoretical demand based pricing have evolved.

For Example:

a) Market Pricing
b) Sponsor-determined pricing
c) Differential pricing
d) Hidden demand-based pricing
e) Strategic-pricing approaches.

a) Market pricing

This is the price that is obtainable in the open market. The training institution prices its activities at the prevailing market rate.

Referring to our earlier discussion this is the price obtained in a monopolistic market where there are many sellers of similar products but not identical products. No single seller has a large enough share of the market to permit the competitors to identify the effects of his pricing on their sales.

b) Sponsored Determined Pricing

The sponsor frequently determines the pricing for the training institution. The result being that the pricing decisions are taken out of the hands of the training institution. As a result the training institute needs to focus on the costs associated with the running of the training institution.

c) Differential Pricing

Differential pricing is where buyers pay a different price for a course or service. Price discrimination consists of charging different prices to different customers, and the term is intended to have no ethical overtones. Quite sound basis of differential or discriminatory pricing may be made on social or political grounds. Additionally differential pricing may be used to absorb excess capacity.

Differential pricing is risky, as it is difficult to segment the market and to eliminate the drift of customers from one segment to another. The end result is that a customer may feel cheated or exploited if they are forced to pay a higher price.

Differential pricing is risky and caution needs to be applied when it is implemented.
d) **Hidden Demand Based Pricing**

Inadvertently training institutions sometimes have a hidden demand based pricing factored into their pricing models. This is a result of using cost based pricing method, however one segment of the cost based pricing may be demand driven.

The most obvious example is staff costs, where frequently training institutions are required to pay market rates for staff. The staff costs containing the demand based costing are built into the costing models hiding the market driven costing for the staff.


e) **Strategic Pricing Approaches**

Strategic pricing approaches:

*Market skimming* – initial high price for the introduction of a new course. This may occur in a market monopoly, however it is generally a short period of time prior to new entrants entering the market, and as a result of these market forces the market price works its way into equilibrium.

*Market penetration* – initial low prices for the introduction of a new product. This has limited appeal, as customers may well lose enthusiasm for the new product as the price begins to increase.

*Pre-emptive or extinction pricing* – Preventing potential competitors from entering a market, or extinction of competitors from the market. Both of these pricing approaches would take place in an oligopolistic market where a few large sellers dominate the market.

Once again this style of pricing has limited appeal for training institutions.

**Recommendations**

Preferably pricing is done on the **cost based pricing approach**.

One reason for cost based pricing being preferred is that it appears to shield the training institution from financial risk. If price is greater than cost then the risk is avoided.

Additionally cost plus formula pricing is seen to be fair. This is a subtle factor, however it does give some relief to senior managers who feel that their pricing is equitable.

Full cost pricing allows VET institutions to benchmark their own products as well as those of their competitors. Full cost pricing formulas are also used to benchmark actual prices.

By using the full cost approach irrespective of how imprecise it may be, over a period of time it is possible to analyse both your own and your competitors’ prices against a backdrop of the full cost pricing method.

*All of the above indicate that full cost pricing has a number of advantages over demand based pricing.*
In the economic jargon of a perfect economy where there is a free flow of information between all parties in the marketplace, demand-based pricing would be ideal. However, the real world does not allow this and as such, for demand-based pricing to be effective, there needs to be a free and open economy. This is the major limitation of the demand-based pricing.

It needs to be stressed that formula-based pricing is only one segment of the pricing equation. Intangibles such as quality of the courses offered, delivery of these courses and so forth will all play a large role in determining the overall price of a product. Additionally, the market within which you operate will significantly influence the pricing decision.
Glossary

**Non Current Asset**
A non current asset is something that you own that has a useful or productive life of over twelve months and will provide service potential or future economic benefits to the training institution.

**Effective Life**
The time frame, given normal repairs and maintenance, that an asset will provide future economic benefits to the training institution.

**Depreciation**
Non current assets decrease in value over a period of time. The service potential of a physical asset held on a long term basis declines over time to the point where this future economic benefit is used up. This is a cost to the training institution and is represented as an expense item called depreciation.

**Accumulated Depreciation**
Depreciation is an expense representing the cost to the company of the value of the asset as it is used up. Each year this expense is recorded in the Profit and Loss of the institution. The accumulated depreciation is the sum of the annually recorded expense. This amount is recorded on the Balance Sheet and offsets the value of the asset that the expense is being recorded against. The net value (original purchase price less accumulated depreciation) of the asset represents the remaining future economic value for the institution of that asset.

**Written Down Value**
The written down value of the asset is the value of the remaining future economic benefit of that asset. It is the cost of the asset that is booked on the Balance Sheet less the accumulated depreciation. The net position is the written down value.

**Direct Costs**
Direct Costs are those costs that can be directly traced or attributed to an activity. This is the opposite of indirect costs. eg depreciation, utility costs (eg electricity), cleaning and maintenance.

**Prime Costs**
Costs that can be directly traced back to a product. Labour and material costs that are traced directly to the product are known as prime costs.

**Indirect Costs**
Indirect Costs are those costs that cannot be traced directly back to a product. These costs are either individually too small to be traced or are incurred jointly for the benefit of a number of cost centres or products within an institution.

**Variable Costs**
Are costs that vary in direct proportion to the level of activity. eg trainer staff wages, course materials.
Fixed Costs
Are costs that remain unchanged regardless of the level of training activity. eg rent, insurance, administration staff wages.

Financial Accounting
Reporting of the financial position and performance of an organisation through financial statements issued to external users on a periodic basis.

Management Accounting
Accounting and reporting system designed to assist the management of an institution or enterprise in decision-making, planning and controlling.

Payment Based Accounting
Accounting procedures which simply records payments within a given period of time.

Cost Based Accounting
Accounting system which is based on the costs for an institution to develop, market and deliver its services.

Net Profit
The profit that remains after all the direct and indirect costs have been deducted.

Assets
May be described as either Fixed or Current.

A Fixed Asset is anything, relatively permanent, used for producing income either directly or indirectly. They are assets for use not for sale. They are also known as New Current Assets.

A Current Asset is anything held by a business which can be converted to cash quickly. Current Assets take the form of cash or claims to cash and are used to generate a flow of income.

Cash Flow
Is the most effective tool for planning and controlling the liquidity of a business. The cash flow establishes what funds are needed, when they will be needed and how much cash will actually be available to meet those needs when they fall due.

Profit and Loss (also known as an “Income and Expenditual Statement”)
This statement shows the profit made in a given period. It is always prepared at the end of a financial year, but well run organisations would prepare it more often, say monthly or quarterly. It takes the total income or earnings of the organisation and deducts from that figure all costs and expenses incurred in earning that income.

Balance Sheet (also known as a “Statement of Financial Position”)
Is a financial report which shows where an organisation obtained its finance and what that finance was used for.
Intangible Assets
Intangible assets are those assets that do not have a physical substance. Examples are goodwill and trademarks.

Amortisation
Amortisation has the same meaning as depreciation, however it is applied to intangible assets or those assets that do not have a physical substance.

Goodwill
Goodwill is the future benefit to a training institution from unidentifiable assets. The accepted accounting practice is that goodwill cannot be internally generated and is generated on the purchase or sale of an institution.

Usage Pattern
All assets by definition have a future economic benefit for the training institution. The way these assets benefits are used up over time represents the usage pattern of that asset.

Cost Centre
A cost centre is an organisational attribute where costs associated with a department or training unit are accumulated. Within a training centre there may be various courses run under the Finance department or Training department. These departments may be classified as cost centres of the training institution. The cost centre is usually the smallest unit of responsibility in a training institution.

Profit Centre
Similar concept to a cost centre, however rather than accumulating costs it is expected that the department will run at a profit. Frequently an organisation splits its organisational or accountability functions into cost and profit centres to further reinforce to the managers of these departments the purpose of these organisational units.

Fee Based Institution
This is an institution that charges the students a fee for attending the training institution. This is in contrast to an institution that is run by the government and no fees are charged for attending.

Capacity Charges
The fixed costs of a service department are incurred to provide service capacity rather than the services themselves. Examples include the costs of providing floor space, heat and light. In such cases, the costs to be allocated to a given department should be based on its relative share of the total service load during peak loads, if this can be ascertained or estimated.

Capacity Index
Capacity index is an index of the usage pattern to allocate costs across various departments.

Booked
This is the recording of the accounting item within the accounting system.
References


Bibliography


Costing and Pricing of VET Products and Services
D  Costing and Pricing of VET Services and Products

1. Enrolments

Attracting and enrolling students into VET programs is an important part of a training organisation’s business. It involves, first of all, providing students with clear and current information on all relevant aspects of the training organisation’s service provision. It also covers student selection, collection of fees and maintenance of student records.

A number of important considerations should be taken into account prior to enrolling students including:

- **Advertising and promotion of courses and training services to potential clients**
  This may include: public, community and industry group presentations; newspaper and magazine advertising including editorials and articles; production of flyers and brochures to advertise courses; dissemination of written information, including mail outs of brochures, e-mail newsletters, use of billboards, training organisation’s website, TV and Radio interviews and advertisements; plus promotional gambits such as discounts, trade shows, free samples, business breakfasts, face to face visits or telephone contact with local industry and businesses.

- **Providing course and training institution information to students**

  **Prior to enrolment:** Course content and vocational outcomes, course timetable including orientation session details, fees and charges, entry requirements, application form, the training organisation’s Code of Practice which should include details of: entry requirements, enrolment procedures, student orientation, fees, refund policy, student welfare and guidance services, complaints and grievance procedures, attendance, RPL procedures, training delivery methods, assessment procedures.

  **Upon application:** Interview details if applicable. Recognition of prior learning procedures.

  **Upon enrolment:** Student ID number, fee payment schedule, course timetable, orientation session details, resources and equipment to be purchased and or provided by student, resources and equipment to be provided by the training institution, list of texts, references and pre-reading materials, Student handbook.
• **Maintaining enrolment records**

These will include:

**Student Records:** names, addresses, contact numbers, email address and details and dates of courses undertaken, details and dates of relevant previous courses undertaken, workshops undertaken, record of fees paid. Application forms. Letters of application, enrolment forms, copy of letter of acceptance into course. Details and evidence of RPL assessments.

**Financial records:** budgets and projections, receipts and invoices, cash books, monthly financial reports, fees paid, refunds and credits.

• **Developing enrolment policies and procedures**

The following policies and procedures should be in place prior to enrolment:

• Student selection/enrolment and induction/orientation procedures
• Fees and charges including refund policies
• Student support including welfare and guidance services and provision for managing language, literacy and numeracy difficulties
• Complaints, grievances and appeals procedures
• Discipline and dismissal procedures
• Recognition of Prior Learning procedures.

What is in this section of the manual?

• Advertising and promoting VET training services to potential students
• Enrolling students into VET training programs
• Administering student records
• Costing and pricing VET enrolment
• Toolkit items:

  1. Examples of student enrolment procedures
  2. Example of a Code of Practice
  3. Examples of enrolment forms
  4. Ideas for engaging enterprises
  5. Identifying industry training needs - Skills Audit Questionnaire

• Glossary and References.

Advertising and promoting VET training services to potential students/clients

_Potential students require clear, comprehensive and well-presented information about the courses and training services provided by the training organisation prior to enrolment._
Initial course information should:

- Clearly summarise the core content of training programs
- Identify vocational outcomes and qualifications that can be achieved
- Specify course costs including any discounts for special cases or needs
- Provide details of the course duration and structure
- Provide information about trainers, their background and experience
- Provide application and enrolment details including entry requirements
- Provide contact and enquiry details for the training organisation
- Possibly provide recommendations or feedback from previous students.

This information can be presented in written form in brochures, flyers, newspaper advertisements or inserts, email advertising and newsletters, and on the training organisation’s website.

It can be further advertised and disseminated through electronic newsletters, TV and radio interviews and announcements, trade shows, business breakfasts, face-to-face visits or telephone contact with local industry and businesses.

Promotion and advertising is likely to be an expensive item for the training organisation and it is useful to do some preliminary market research to help identify the most economical and effective strategies for reaching the target market. An important part of this is establishing a network of advertising options that support the best distribution of information to students.

The following case study provides an example of how a small training provider promotes and advertises its VET programs.

Box 4
The ACE Mullumbimby Course Advertising Experience

ACE Mullumbimby Inc is an Adult and Community Education provider in Byron Shire located in Northern New South Wales, Australia. The Shire has a resident population of approx 30,000 plus a high transient tourist population.

ACE Mullumbimby advertises both VET and recreational courses four times a year in a newspaper style, eight page brochure. The brochure advertises over 130 courses per term including approximately 30 VET courses leading to vocational outcomes and national qualifications.

Of the 27,000 copies of this brochure printed each term, 19,000 are included as an insertion in a local free newspaper The Echo, and the remaining 8,000 are distributed through a variety of retail, service and community centre outlets, cafes libraries, doctors and dentists within the Byron Shire.

Also five small display advertisements are placed in The Echo each term and occasional articles on the term’s program or specific courses are printed by the newspaper. In addition a double page advertisement of the program is taken in a rival local newspaper, The Byron Shire News.

Continued…
Enrolling students into VET training programs

In this section we will look at three areas of enrolling students in VET programs

- Training organisation based enrolments
- Industry/Enterprise based enrolments
- Enrolling students in Distance Learning programs.

Training Organisation based enrolments

Timetabling:

Most training organisations will have a timetable scheduling different stages in the enrolment process. For example ACE Mullumbimby has a yearly calendar that schedules the following items:

- Course brochures out: Thursday January 15th
- Course brochures distributed through Echo newspaper: Tuesday January 20th
- Courses advertised through Community Radio: Thursday January 22nd
- Enrolment of students begins: Monday January 19th
- Courses start: Saturday February 7th
Additional items that could be time scheduled include:

- Decide on courses for the term/year
- Establish fee structure for courses
- Timetable courses
- Develop system for recording course enrolments and student information (e.g. database, manual system)
- Begin production of new advertising materials (e.g. brochures)
- Printing of brochures/ flyers etc
- Training organisation ‘Open days’
- Student interview dates
- Student orientation dates.

Enrolling students into VET courses

Although the training organisation will designate a specific period for actually enrolling students into courses, it is usual for enquiries to be taken at any time and for enquirer details to be recorded for possible enrolment at a later date.

Enrolment procedures will vary from institution to institution. Their common elements are likely to include:

- Providing information to prospective students about courses and programs prior to enrolment. *(Course brochures etc)* This may involve advising students as to which course might best suit their needs. See Toolkit Section B Item 2. Example of a Code of Practice
- The completion of an application or enrolment form See examples in Toolkit Item 3
- The collection of fees. This may include explaining how fees may be paid and over what period of time. Giving advice about concessions discounts, or training allowances and grants. See Toolkit Section B Item 1 Example of student enrolment procedures
- Arranging student interviews and orientation meetings where appropriate
- Providing additional information to enrolled students prior to starting their course of study. See Toolkit Section B, Providing course and training institution information to students – Upon enrolment.

Industry enterprise based enrolments

Some VET training organisations are contracted by local businesses to organise staff training to meet the identified needs of the industry enterprise.

Traditionally industry enterprises are often reluctant to invest time and money in staff development and fail to recognise the benefits associated with staff training. Training organisations need to find ways to overcome the barriers to training often presented by industry enterprises. See Toolkit Section B Item 4 – Ideas for Engaging Enterprises
Training organisations can either:

- Approach industry enterprises – cold canvassing by telephone or in person, interviews and meetings, through business networks, brochures, articles and advertisements in local publications or trade magazines
- Respond to requests from industry enterprises for assistance with their training needs.

**Consulting with industry**

Once an enterprise has indicated an interest in proceeding with training, the training institution needs to consult with them on the level of involvement they would like to have in the process of identifying and meeting training needs.

Some enterprises may have already carried out a training needs analysis and simply be seeking training program options. Other enterprises may require the training organisation to undertake a training needs analysis and report back with training recommendations to the enterprise. In either case, clear communication and willing cooperation is required to facilitate the process.

**Identifying and meeting industry training needs**

To identify and meet training needs within an enterprise, the following steps need to be taken:

1. **Collect information on the enterprise’s training and development needs**
   Depending on budget and time factors, this can be done via focus groups, one-on-one meetings, or a questionnaire. Questionnaires provide quantitative information and can highlight issues needing attention. These can be explored in detail through other mechanisms such as focus groups. *See Toolkit Section B Item 5 – Skills Audit Questionnaire*

2. **Analyse information collected**
   Analyse the results of the questionnaire, focus group or one-on-one meetings to identify staff skill gaps. Compare skills already obtained with skills required to do the current job and those required for future development. You may find that an employee is better suited to a different role than that which they are currently employed to do.

3. **Create a training profile**
   Create a training profile by recording your analysis in an easily retrievable format such as a table. Depending on the size of the organisation, you may wish to record data on a sectional or divisional basis. Identify the types of courses or on-the-job experiences requested, the number and levels of people requiring training (for example, shop floor, managers), and the number of sessions needed. Distinctions made between full and part-time staff will allow session times to be scheduled in working hours.

4. **Devise a training and development plan**
   Develop a Training and Development plan. The plan should list all of the courses scheduled, the types of employees identified as ideal participants, the dates, venue and session times.

5. **Publicise the training and development plan**
Publicise the training and development plan to all staff, preferably providing individuals with personalised notice. This ensures that all employees are advised of the available learning opportunities and provides equal access to developmental opportunities. Liaise with supervisors about the suitability of courses for specific employees.

6. **Implement the training**
Enrol staff members in appropriate course and deliver the training. Maintain adequate records.

7. **Evaluate the training**
Evaluate the effectiveness of the training to measure how well the training objectives were met.

These seven steps allow the training organisation to increase their training markets through working directly with local industries and enterprises, and develop training programs to match the needs of specific groups. In some cases, when only a few staff members require training in a specific area, the most cost effective option may be to enrol those staff into scheduled programs run by the training organisation.

**Distance Learning program enrolments**

Enrolling and registering students into Distance Learning programs need not be very different from enrolling students in face-to-face programs. Some training organisations use special application forms (*See Toolkit Section B Item 1B*) for distance learning students while others use their general application forms for all students.

Many colleges ask students to self assess their suitability for distance learning programs prior to enrolling in courses. The following example from Pierce College Washington USA, a Community Technology college that provides vocational degree and certificate programs for training or retraining in a variety of job fields, is typical.

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**Box 5**

**Pierce College Washington USA – Enrolment information for students into Distance Learning programs.**

*Is Distance Learning right for you?*

Taking charge of your own learning "at a distance" is exciting and rewarding. Unlike the typical classroom, there are no instructors at the front of the room and no regular class meetings to motivate you. *Students must be self-starters.* They must also be very organised, willing to seek answers, and able to work independently. Finally, distance learners must like to read, be able to do research and possess above average technology skills (keyboarding, computers, e-mail, Web browsing, VCR/TV).

Continued…
Finding that you can overcome these challenges and take responsibility for your education gives you the freedom and power to learn and grow for a lifetime!

Before you register, check your readiness by

- taking our assessment survey
- speaking with your faculty advisor,
- contacting the Advising Center,

or by contacting the Distance Learning office.

On our Web site

At the Distance Learning web site, you can check out the class schedule, find out how to enroll read class Welcome Letters, and find out the latest news from Distance Learning!

N.B. Each underlined item denotes a website page link to further information. 2

Applications for distance learning programs are generally followed up with a telephone interview if a face-to-face interview is not practical. The following points should be considered:

- Determine the learning style and self-discipline of the student to make sure they will be motivated to complete coursework. Many distance classes are very focused and intense, with much independent work required
- Determine what kind of time requirement will be expected of the student. Some programs may require the student to visit the college campus and meet with trainers/assessors or attend videoconferences or other two-way link ups while others may be exclusively online or text based
- Discuss the opportunities for training institution-student interaction as well as collaborative group learning, much of the coursework is likely to be done independently. Will this independence suit the students learning style?

Once students have passed the suitability test and been formally accepted onto a DL course, they are sent detailed information on the fee payment schedule, course timetable, DL orientation session details, resources and equipment to be purchased and or provided by student, resources and equipment to be provided by the training institution, list of texts, references, websites and pre-reading materials, and a Student Handbook. 3

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2. Pierce College website: www.pierce.ctc.edu
3. For further information on Distance Learning please refer to the Manual Section D, Costing and Pricing Distance Learning in VET
Administering student records

Record administration for student enrolments must at minimum track the following items:

- Contact details of students enrolled,
- The courses for which students are enrolled
- Details of any RPL assessments undertaken
- Fees paid
- Refunds and credits given.

This basic information can be collected through Application Forms, Register of fees paid, and other course registration information. Collated information can be used for statistical and reporting purposes.

Additional enrolment records may be kept of:

- Application Forms
- Interview details
- Registration Forms
- Letters of acceptance
- Course brochures and timetables
- Advertisements placed.

Examples of record keeping procedures for enrolment can be found in Toolkit Section B Item 1

Costing and pricing VET enrolment

The following items should be costed when preparing a budget for program enrolments:

**Advertising**
- Newspapers, brochures, flyers, Radio/TV, Exhibitions, Introductory seminars, websites, special offers

**Marketing**
- Course information, student handbooks (including code of practice) etc, enrolment forms

**Fees**
- Collection and banking, refunds, deferment of course and fee credits, Protection of student funds insurance, if appropriate

**Enrolment Administration**
- Administration staff, record keeping systems (e.g. computer hardware and database program or manual system), correlation of enrolment statistical data

**RPL processes**
- Policies, procedures, assessors’ time

**Student interviews**
- Selection criteria, staff time

**Student induction**
- Policies, procedures, Induction/orientation handbook, staff time

**Access and equity**
- Policies, procedures, procuring training allowances, stipends for disadvantaged students

**Client welfare and guidance services**
- Client support and welfare staff.
# Glossary of terms and abbreviations

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Access and Equity</td>
<td>A policy or set of strategies to make vocational education and training available to all members of the community, to increase participation and to improve outcomes, particularly focusing on those groups that have been traditionally under-represented, especially women, indigenous people, people with a disability, people from a non-English-speaking background, and people from rural and remote areas.</td>
</tr>
<tr>
<td>Admission criteria</td>
<td>Requirements, such as educational qualifications, knowledge, skills or experience, for entry to a particular course.</td>
</tr>
<tr>
<td>Business Networks</td>
<td>A group of businesses and enterprises which form connections and alliances in order to address common issues and needs.</td>
</tr>
<tr>
<td>Code of Practice</td>
<td>A document which details the key principles, practices and procedures of an organisation and the rules, regulations, and policies which govern these practices.</td>
</tr>
<tr>
<td>Cold Canvassing</td>
<td>Refers to approaching enterprises either by phone, email or in person without a prior appointment or notification.</td>
</tr>
<tr>
<td>RPL</td>
<td>Recognition of Prior Learning – means recognition of competencies currently held, regardless of how, when or where the learning occurred.</td>
</tr>
<tr>
<td>Procedure</td>
<td>A procedure describes the step-by-step process for completing a task proscribed by a particular policy. e.g. <em>Enrolment Procedures</em>.</td>
</tr>
<tr>
<td>Skills Audit</td>
<td>An identification of the skills required and held by the workforce.</td>
</tr>
<tr>
<td>Student Handbook</td>
<td>A source of useful information for students that includes sections on: local environment, accommodation, public transport, medical services, educational services, literacy and numeracy assistance, local government services, welfare agencies, client support and welfare etc.</td>
</tr>
<tr>
<td>Training Needs Analysis</td>
<td>A formal process of identifying the training needs and skills gaps within an organisation.</td>
</tr>
<tr>
<td>Training profile</td>
<td>A description of the training needs and the planning, required to address those needs within an organisation.</td>
</tr>
<tr>
<td>VET</td>
<td>Vocational Education and Training</td>
</tr>
</tbody>
</table>
References and Websites

ANTA – Australian National Training Authority


Pierce College Washington USA - [www.pierce.ctc.edu](http://www.pierce.ctc.edu)


Northern Arizona University – Distance Learning Enrolment Form  [www.distance.nau.edu/docs/enrl_req.pdf](http://www.distance.nau.edu/docs/enrl_req.pdf)
D Costing and Pricing of VET Services and Products

2. Recognition of Prior Learning/
Recognition of Current Competency
(RPL/RCC)

What is Recognition of Skills and Knowledge?

People who have been working in a particular position/job for a period of time may have some of
or all the skills and knowledge (as set out in the Competency Standard) and may want to be
assessed so they can achieve recognition for their skills, knowledge and experience.

Competency Based Assessment is the process of gathering evidence and making judgments
about whether a candidate meets the criteria specified in the Competency Standard.

RECOGNITION is the process that takes place over a period of time, under different conditions
and circumstances. It is not a stand alone or one-off event like a test. The process involves the
collection of a variety of evidence from different sources, that combined, address all the
requirements of the standard.

In reality, Recognition of Prior Learning(RPL)/Recognition of Current Competency (RCC)
are likely to work together. Candidates undergoing the Recognition process would probably use
a number of areas such as current job/role experience/skills, recent training or other areas such as
those listed below. RPL must be flexible, reliable, sufficient, fair and valid.

The success of any service is a combination of both the outcome achieved and the processes
involved. Given the uncertainty of the outcome of an RPL assessment, it is essential to have
efficient and effective RPL processes, which support and engage Applicants. Genuine and
positive encouragement is a key factor to the success of the RPL process. Some Applicants are
very confident and comfortable with assessment while others may be nervous or reticent to apply
for RPL. If Applicants believe you are doing your best for them, even if they are disappointed
with the outcome, the relationship you have created through the RPL process, may still
encourage them to undertake training.
What is RPL/RCC?

RPL is Assessment.

The key difference between RPL and other assessments is that no tuition is required before an RPL assessment because the Applicant already holds the skills and knowledge. That is why RPL is sometimes referred to as an “up front” assessment.

The RPL/RCC process acknowledges the applicants competency from skills acquired through:

- Work experience/history
- Formal or informal training and education
- Life experiences – skills obtained through interests such as musical, mechanical, languages, sporting activities/involvement in sporting organisations
- Volunteer work
- A combination of the above.

Industry as an Important Stakeholder in the RPL Process

Industry is often only involved in the verification of evidence for an Applicant in the RPL process.

Ideally Industry should be involved in the development of the RPL process and not only used as another form of evidence to verify that an Applicant is competent.

Involving Industry in the development phase of the process will reduce the risk and improve the quality of the RPL process.

Some key factors to consider in improving the relationship of industry in the RPL process:

- Consult with managers and supervisors about their RPL requirements
- Develop competencies/qualifications that represent real job tasks. This will link Industry job tasks to the guidelines for the assessment methods
- Involve Industry with negotiating benchmarks of competence from the employer’s perspective
- Confirm with employers what “on the job” competence means to them
- Consider the risk to Industry/Employers on issues such as safety and financial matters
- Research emerging changes to Industry such as new technology and changes to industrial arrangements
- Evaluating and moderating the RPL process to ensure consistency and quality of the RPL outcomes
- Building relationships with Industry through ongoing involvement to ensure quality and consistency to allow for changes and emerging trends
What is in this section of the Manual?

- The following pages explain the meaning of RPL/RCC and how recognition is given to the Applicant for skills acquired through various methods. It also explains the Benefits of the RPL/RCC process, how do we know when someone is competent and what an Applicant requires to support an application for Competency. This section also outlines the various methods of collecting evidence to support an Application for RPL/RCC and the procedure for the Application Process.

- A TOOLKIT comprising:

  **Item 1**  
  Flow Chart for Recognition of Prior Learning/Recognition of Current Competency

  **Item 2**  
  Case Studies

  **Item 3**  
  Costing

  **Item 4**  
  Application Forms
  
  a  Application Form – RPL/RCC
  b  Work Experience Details
  c  Other Experience Details
  d  Assessment Summary and Feedback
  e  Assessment Appeal
  f  Feedback on RPL/RCC Process
  g  Applicant Self-Assessment Tool Recognition
  h  Third Party Evidence Form
  i  Third Party Interview Checklist
  j  Assessment Plan for Recognition
  k  Evidence Checklist
  l  Recognition Competency Checklist
  m  Record of Interview

  **Item 5**  
  Costing Worksheet

- Glossary of terms and abbreviations

- Bibliography – References and Websites
Figure 1  Recognition of Prior Learning/Recognition of Current Competency

THE PROCESS

Step 1  
The Interview
Applicant – Assessor
- Discuss the Application
- The type of evidence required
- The Timeframe for the assessment

Step 2  
The Application Process
- The Applicant completes the application form
- Collects and provides the evidence

Step 3  
The Assessment
- The Assessor examines the Application with the evidence
- The Applicant is notified within the agreed time

Step 4  
Recording
- The Assessor records the result of the Assessment
- The course Co-ordinator is given a copy of the Assessment

Step 5  
Additional Information
- The Assessor may request additional information
- The Applicant is informed of the outcome of the Assessment

Step 6  
An Appeal
- The Applicant may appeal the decision
- The Application can be re-submitted

Step 7  
The Final Decision
- The Assessor assesses the re-submitted Application and makes a final decision
- The Assessment is recorded and the Applicant informed
As well as using standards to design learning programs, you can also use them for designing recognition processes. The Evidence Guide should provide you with information about processes and products to be collected as evidence. You can then use the performance criteria to create a checklist and evaluate the evidence for recognition.

What are the benefits of the RPL/RCC Process?

- Acknowledges skills already acquired
- Identifies strengths
- Identifies areas of weaknesses
- Identifies areas where additional training is required
- Eliminates any duplication of training
- Saves time and money
- Maps out a pathway to a higher qualification in the future
- Introduces a learning environment and culture in the workplace
- Valuing and recognising the skills, builds confidence and self-esteem
- Can result in a full qualification or part of a qualification called a Statement of Attainment.

The Benchmarks for assessments used for RPL is the same as assessment of competencies in training. However, the assessment methods or processes can be very different.

To grant an RPL/RCC the assessor must be very sure that the Applicant meets all the competency standards/outcomes in the Accredited Course.

The aim is to identify processes that are simple for the Applicant while at the same time submitting reliable evidence of current skills against the Benchmarks.

How can RPL/RCC be incorporated into the VET system?

RPL is introduced through standards and regulations specified by the regulating authority, which could be either a Federal or state authority.

For example, in Australia, RPL is introduced through the Australian Quality Training Framework (AQTF – Standard 8).

What is Competency?

In Vocational Education and Training, Applicants are deemed to be competent when their skills, knowledge and experience are successfully applied to the standard of performance expected in the workplace.
How do we know when someone is Competent?

This is determined after completing a Competency Based Assessment. A Competency Based Assessment consists of various methods of validating evidence.

An Applicant can be assessed at various times during the training. The process could be at the beginning of training, during training or they may not even enter into training, as they believe they are already “Competent”.

**Competency Standards or Units of Competency** have been developed by Industry against established standards often called **Benchmarks**.

**Competency Standards** are made up of “**Elements**” which make up the essential information that is known as the **Performance Criteria**.

The Applicant is required to prove, through various methods of assessment, that they can fulfill the Performance Criteria, which is required to be deemed as “Competent” in the workplace.

What are some Evidence Collection Methods?

Methods of collecting evidence of an Applicant’s competency may take many forms such as:

- Demonstration
- Observation
- Conversations/discussions
- Questioning
- Formal trade/skills tests
- Work samples
- Reports from supervisors
- Work history through Resumes
- Letters from previous employers
- Documents relating to skills.

Assessors should verify the documents provided and use every opportunity to gather as much evidence as possible for the assessment process of RPL/RCC.

Assessors should take into consideration the level of language, literacy and numeracy requirements that they do not exceed that of those required for the job.

What is the Procedure?

1. The first process in applying for an RPL/RCC is to arrange an interview with the Applicant. The interview should cover points such as:

   - Which Units of Competency is the candidate applying for RPL
   - Informing the Applicant of the types of evidence required to be presented in an application
   - The format of that evidence
• Discussions about the timeframe for the completing of the application
• A date by which a decision would be given
• If the Assessor felt that there may be difficulties as they may not have the required experience/skills for a successful RPL
• An explanation of the Appeal’s Process if the Applicant disagreed with the assessment outcome
• Forms for the application are given to the Applicant
• Both parties to sign a record of interview to include the above points.

2. The Applicant prepares the application under the guidelines of the Assessor and submits within the agreed time.

3. The Assessor examines the application with the evidence.

4. The Applicant is notified of the decision by the agreed time.

5. If the application has been successful, the decision is recorded on the appropriate form.

6. The course Co-ordinator is informed and given the above form which is kept in the Applicant records.

7. If the Assessor requires additional information, the Applicant is contacted and asked to provide the information/evidence.

8. A record should be kept of that conversation and should be signed by both parties.

9. The Applicant can then re-submit the application by the agreed timeframe.

10. The Assessor makes the final decision, records and informs the Applicant.

What Documentation is included?

Copies of any Certificates or Completion of Courses should be included in the application to support the competency. It is the responsibility of the Applicant to show proof of experience and education. If you do not provide adequate and relevant evidence the RPL process may be unsuccessful.

What References should be included?

Written references from previous employers should be included in the application. The reference should include the title of the position held, the duration of the employment, the duties of the position and the skills of the position.

Another reference could be from a volunteer organisation or an NGO and the same information should be included.
Risk Management

Managing the risk in the RPL process requires a systematic application of management policies, procedures and practices to identify, analyse, evaluate, treat and monitor the risk.

An effective RPL process is one that minimises the incidences and consequences of different risk by prescribing and applying appropriate controls.

Work based RPL’s can minimise risk in assessment because industry and employers are directly involved, ensuring that the assessor and industry are collaborating and sharing in assessment of industry competence.

A risk management approach is a positive and effective way to deal with many concerns arising from competency based assessments.

Key Issues in Competency Based assessment

- The authenticity, validity, reliability, currency and sufficiency of evidence
- The reputation and integrity of the RTO, their staff and VET sector
- Differential training and assessment paths for existing and entry level workers
- Requirements of regulatory and licensing bodies
- Quality and consistency of assessment practices
- Maintenance of industry standards across multiple learning and assessment environments

The risk analysis process should identify areas of greatest risk or consequence and direct assessment energies to where they are most needed.

What are the Costs associated with an RPL/RCC Application?

Interview Time

- With applicant to discuss the skills/experience etc required for the Unit/s of Competency
- Explaining the RPL/RCC Process
- Explaining the collecting/gathering of evidence – the types and sources to support an application
- Explaining the application forms
- Additional time with the Applicant once the application form is complete
- Going over the information on the application form and to ensure that the applicant has supplied all the details and attachments
- What is the next step – a timeframe for the decision and when the Applicant will be informed.
Processing the Application

- Matching the evidence submitted (references, skills tests, supporting letters, Certificates etc) to the elements of the competency
- Checking references – time involved in telephoning when possible or writing to a Referee
- Talking to Supervisor to verify skills in the workplace
- Time may be required in talking to the Applicant if an area in the application is not clear.

Administration

- If successful, issuing a Statement of Attainment for the Unit/s of Competence as part of the qualification
- Cost of the stationery
- If unsuccessful, notifying the Applicant in writing and contacting by telephone
- Further interview if the Applicant wishes to appeal the decision – what would be required to support an appeal (may be in the area of additional evidence or that additional training/experience is required).

The Candidate will be charged an RPL/RCC fee based on the hourly charge out rate of the Assessor and will not exceed 70% of the fee for the course.
CALCULATION FOR DISCOUNTING COURSE FEES

Fees associated with student records and administration are unchanged even when you are given an exemption through the RPL Process. Usually, 15% of the course fee will not change.

For example: if you are given an exemption from 50% of Units of Competency in a Certificate, the fee is calculated in this manner:

- 15% of the current certificate course fee is calculated
- Discount 50% from the remaining 85% of the current certificate course fee
- Add the two figures together
- Any fee that you have paid from the RPL Application are deducted from that amount.

Box 6

CASE STUDY
Discounting Course Fees

The Course cost if AUD$500.00

- 15% is $75.00
- 85% remaining is $425.00
- 50% of $425.00 is $212.50
- Add $75.00 and $212.50
- Total $287.50
- Any fee paid from the RPL/RCC Application is deducted from the $287.50

AUD = Australian dollars

Note: If paying in instalments an additional charge applies:

- 8% of the course cost for 2 instalments
- a further charge for payment plans of more than 2 instalments
GLOSSARY

Assessment Appeals Process

If a candidate is unsuccessful with an application for RPL/RCC or was unsatisfied with the way the assessment was conducted, an appeal of the assessment result may be lodged or the candidate may ask for a review of the assessment. This process should take no longer than two weeks and the candidate will be advised of the result in writing. This means that the candidate will either be re-assessed as competent (Appeal Upheld) or may seek re-assessment to verify competency (Appeal Dismissed). All discussions and appeal applications should be treated in the strictest confidence.

If the candidate is not satisfied with the outcome of the Appeal, they may Appeal to the Registered Training Authority. This could be a State, District or Federal authority.

Assessment of Competencies

A process of collecting evidence to support the decision of Competency. Assessment should integrate knowledge and skills with practical applications as happens in the real world of work. A “holistic” or “integrated assessment” occurs when you assess several related competencies or aspects of a single competency at the same time.

Assessment is a complex process involving a number of activities including planning, preparation, collecting and recording evidence and making judgements on whether competence has been demonstrated.

Assessor

Assessors are people who have been trained to determine accurately whether Candidates have displayed a competency. In industry, supervisors are often Assessors. To assess a person’s competency, an Assessor might just watch a person work or review a project they have completed.

An Assessor is usually a person with a minimum of 3 years of industry experience.

Benchmark

How do we know how we are doing? Benchmarking is a reliable and consistent way to measure performance, productivity, quality and innovation. Establishing key indicators/measures allow benchmarks to measure and monitor performance. Examples of key indicators/measures could be the number of accident free days in a given period of production or the number of errors or defects or number of units produced. Benchmark is defined as a point of reference from which quality or excellence is measured. In assessing if a candidate is competent, they are judged against established standards.
Benchmarks can be used in a number of ways including:

1. Monitor our own quality, progress and improvements over a specific period. If the ‘Benchmark’ indicator or measure has been reached or exceeded, then persons can receive positive feedback which can be motivating and encourages continuous improvement. If ‘Benchmarks’ have not been reached it can alert us to a problem which requires rectification. In this way, benchmarking helps to monitor, maintain and improve quality levels.

2. Comparing the quality of other departments within the organisation.

3. Compare our own organisation’s performance in key measures of quality and efficiency with the performance of other organisations in our industry.

**Competency**

Competency is the ability to do a particular task. This is a combination of skills, knowledge and experience in doing the particular task.

Competencies describe the skills and attributes a person must have to do a job well. They include manual skills, knowledge and attributes (quality, character or characteristic). Competency is a term used in Training Packages and by organisations to determine the level of skills required for a particular job/position.

For example: the competency required to do a particular job/position would be a list of what the person must be able to do, under what conditions, and the standard they must reach.

If we can prove a competency by performing the task to the required standard under the specified conditions, we may receive a credit for what we already know and can apply for the Recognition of Prior Learning Process (RPL).

**Competency Based Assessment**

Competency Based Assessment is the process of gathering evidence and making judgments on whether competence has been achieved.

This confirms that an individual can perform to the standard expected in the workplace as defined in the relevant endorsed industry competency standards (or outcomes of accredited courses if there are no competency standards for an industry).

**Competency Standards**

Competency Standards are documents that define the competencies required for effective performance in the workplace in a specific industry. Competency Standards include the essential information needed to assess a candidate.

Competency Standards are also referred as Units of Competence.
Competent

To be deemed as ‘Competent’ a person satisfies the Performance Criteria of the Elements of the Competency.

Elements

Elements are the building blocks of a Unit of Competency and are the steps required to achieve the Unit of Competency for the specific theme.

Evidence

Evidence, in the assessment process, is information that supports or proves competency in a particular area. The evidence relates to a range of information that supports that a person has the skills and knowledge to perform a job to the required standard. Workplace observations or “walk throughs” can be a fast and comfortable way for clients to demonstrate their skills and knowledge.

When a candidate is undergoing a recognition process, they are asked to gather a range of evidence to demonstrate and prove their competence.

There are three general groups when gathering evidence:

1. **Direct** – obtained when an Assessor observes the candidate perform in the workplace. The Assessor decides if the candidate has competently performed the tasks required
2. **Indirect Evidence** – used when it may not be possible or desirable for the candidate to be assessed in the workplace. For example, it may be too costly or involve risks. Evidence could be projects, role plays or simulations
3. **Supplementary Evidence** – when an Assessor needs additional evidence to support a decision of competence. This form of evidence could be oral or written questions, tests to be: off-the-job or reports from supervisors.

Most workplaces are supportive of their employees becoming qualified and can provide the most direct source of evidence and support for the client.

The **quality** of the evidence submitted rather than the **quantity** is the important factor.

Performance Criteria

Performance Criteria set the standard to which each element of competence must be carried out. Performance criteria assess the quality of performance required for the Element of Competence.

Recognition

Recognition is a process that must take place over a period of time and under different conditions and circumstances. It is not a one-off event like a test. It involves the collection of a number of pieces of evidence from varied sources, that added together, address all the requirements of the Competency.
Recognition of Prior Learning (RPL) and Recognition of Current Competency (RCC)

This is a term used for individuals who desire their skills, experience, knowledge etc that they are currently using for a particular job/role, recognised through the process of submitting supporting evidence to be assessed against competency standards.

Resumes

A Resume is a written document which states the following:

• Name, address and contact details
• Educational history
• Qualifications attained – Degrees, Certificates, Statement of Attainment, Tickets/Licences
• List of skills
• Personal interests
• Voluntary work
• Work history – chronicle order – most current first
• Referees – including name, title and contact details.

Risk Management

Risk management means the systematic application of management policies, procedures and practices to the tasks of identifying, analysing, evaluating, treating and monitoring risk.

Statement of Attainment

A document which lists successfully achieved/completed Unit of Competency as part of a Qualification.

Units of Competency

Units of Competency are broken down into ‘Elements of Competence’, that is the steps that are required to do the specific job. They describe skills, knowledge, behaviours/attitudes required to perform specific tasks in the workplace.

The profile of the unit of competency, or cluster of competencies, can be used as a starting point for discussion with a client regarding assessment and evidence requirements.
REFERENCES


BIBLIOGRAPHY


Vocational Education and Assessment Centre (VEAC), “Recognition Resource”, 2/4 Locomotive Workshop, Australian Technology Park, Everleigh, NSW 1430, Australia www.veac.gov.au


RPL/RCC WEBSITES

(Recognition of Prior Learning. Your First Step.)

www.bhtafe.edu.au/Courses/Inf/rpl.htm

www.ncver.edu.au/research/proj/nr

www.safecity.act.edu.au/rccwor.htm

www.tafensw.edu.au/applying_and_enrolling/e_previous.htm


www.tpatwork.com/tp
D Costing and Pricing of VET Services and Products

3. Distance Learning

OVERVIEW

A definition of Distance Learning

Distance Learning (DL) is a method of learning in which students are not required to be physically present at a specific location during the learning process. Students are formally enrolled in a school or college but receive instruction at some remote site. Although DL is increasingly used to deliver educational programs in city areas, its primary use is to improve educational services in rural areas where traditionally people do not have access to good quality education.

What is the purpose of Distance Learning?

- It can expand upon existing VET services and improve the quality of services provided
- Provide increased access for students who need education and training in rural communities, in subjects such as animal husbandry techniques and fertiliser usage, computer keyboarding, software applications and computer maintenance
- Provide increased knowledge of and experience in the use of communication technologies such as radio, computer and television
- Provide training for teachers, administrators, community and health workers in places where there is limited access to professional development
- Provide important information to rural communities on issues such as health and family planning, agricultural markets and emergency support services
- Reach students who do not have access to traditional learning opportunities or specialised courses, because of distance, time, or financial constraints
- Meet the needs of students who cannot attend courses because of employment commitments, child-care demands, disability or remoteness
- Attract students who like self paced learning and provide instruction in subjects that do not attract sufficient numbers to run traditional classes
- Serve as a stepping stone to regular classroom instruction
- Link students from different social, cultural and economic backgrounds.
What are typical Distance Learning services and systems?

Typically, a DL program provides learning tasks, information and instructions, required reading and assignments to students. It also establishes systems for teacher-student interaction. The provision of these services relies on the use of communication technologies.

High-level communication technologies can provide interactive learning programs through mediums such as the Internet, email, computer based training, and video conferencing. These can be effective ways of providing good quality DL programs, but “often too costly and unsustainable for developing countries with limited resources allocated to education.”

Low-level technologies use printed materials, audio and videotapes, CD ROMS, telephone, local radio and TV as mediums for DL. These are more likely to be more realistic, sustainable and cost effective for rural DL projects in developing countries, especially if they are combined with delivery methods that promote student-teacher interaction.

What is in this section of the manual?

Key steps in delivering a DL program

The following pages outline the processes and costs involved in establishing, delivering and evaluating rural DL programs. They will help you assess the viability and sustainability of providing DL programs as part of your VET services.

A Toolkit comprising:

Item 1. A Training Needs Survey form including costing checklist.


Item 3. A technology checklist for assessing which technologies to use for distance learning.

Item 4. Distance Learning program evaluation (Performance indicators).

Glossary of terms and abbreviations

References, Bibliography and Websites

1. Addendum No 9 Delivering Distance Learning using Web-based technologies
Figure 3
Key steps in delivering a Distance Learning program

A. How do I develop a DL program?
B. How do I finance a DL program?
C. How do I organise and administer a DL program?

**Survey**

- Conduct Survey
- Parallel Process
  - a) existing and desired infrastructure
  - b) industry need and potential
  - c) existing skill and education levels
- End Process
  - Survey Result
  - NO

**Development**

- Define training resources
- Define delivery methods
- Evaluate: Can objectives and outcomes be met?
  - YES
  - Develop instructional materials

**Delivery**

- Facilitate program delivery and assessment
- Evaluate: Have objectives and outcomes been met?
  - Results
A. How do I develop a Distance Learning Program

1. Research the need for a DL program

A survey of the remote/rural area targeted for DL programs should be made to determine:

- What are the remote/rural area learning needs?
- What is the demand for DL services in the area?
- How can these demands be best addressed through a DL program?
- What are the most cost effective and sustainable DL strategies for meeting these needs?

Data should be collected to estimate student need over an extended period, say five to ten years. You will need to develop questionnaires that gather information on student needs and characteristics, facilities and resources for undertaking DL. A sample survey is provided in the Toolkit.

Survey information should be analysed to determine the subject areas and target groups for DL training programs.

‘Success or failure of a DL project depends upon its potential for sustainability over the medium to long term’.

2. Obtain support for a DL program

It is important to gain community support for a DL project. Successful rural and remote community DL programs generally provide education/training services to small communities who fully support the project aims. This means taking into account the cultural and social values, customs and traditions in the development of the program. The program needs to be sensitive to community priorities and needs and issues such as gender and age. Religious and political leaders may need to be convinced of the advantages of the program.

Involve local partners (government and non government organisations and personnel) in the project and conduct stakeholder meetings in the early stages of setting up a program. A successful DL program in a rural community needs grassroots support and knowledge. ‘Local partners should know local customs local customs, be able to work and teach effectively in local languages, have demonstrated abilities to deal with political and bureaucratic realities’

3. Establish DL program objectives

DL Programs need to have clear educational objectives based upon well-developed understanding of client needs. These objectives, or learning outcomes, should be integrated wherever possible with national education systems and standards. Linking to national curriculum and standards wherever possible will facilitate government support for the project. Clear program objectives provide a rationale of the benefits for instigating and financing a DL project.
Below are some examples of vocational DL program objectives:

- Use DL to train 25 rural teachers for immediate service in the 15 villages participating in program
- Provide AIDS health information and training for community workers each week in each of 15 participating villages
- Provide two hours per day (five days a week) of basic instruction in animal husbandry based on the national curriculum to 250 students who have previously been unable to attend traditional programs
- Provide one hour of horticultural information and training six days a week to rural farmers.

4. **Develop program curriculum**

This may be the most expensive and time-consuming element of a DL project, as well as the most labour intensive. Wherever possible access centrally developed curricula as the basis for your program. Established curricula can be customised to match the target group’s needs. However you may need to develop original curricula or course outlines in the language of the target population. Well-designed DL programs should be flexible, provide a supportive learning environment, promote teacher-student interaction and be relevant to students’ actual circumstances.

Cost may well decide whether content is purchased or created. The following criteria can be used:

- Purchase and use developed curriculum when suitable and cost-effective;
- Purchase and adapt when not exactly suitable, but cost-effective;
- Create own curriculum when no suitable or cost-effective materials are available.

5. **Identify program delivery methods**

Full time or part-time study is possible with DL, although most students choose part-time study. DL may be used on its own, or in conjunction with other more traditional forms of delivery, including face-to-face instruction. Learning may be undertaken either individually or in groups.

Distance learning programs often feature consensus building and group projects, through which students can develop skills in collaborating with distant colleagues and cooperating with a diverse group of individuals. Such skills are increasingly needed in the global workplace.

Careful planning and attention to detail in the organising of DL programs is critical for success. While the content of programs remains basically the same as classroom delivery, new strategies are required for presenting the material to students and ample time should be allowed to develop these.
You will need to:

- “Understand the strengths and weaknesses of the instructional delivery systems available (e.g., audio, video, data, and print) as well as the technical means by which they are delivered (e.g., satellite, microwave, fibre optic cable, etc.)
- Analyse the advantages and disadvantages of delivery options in relation to student needs and the course requirements before selecting a mix of instructional technology
- Encourage close working relationships between curriculum designers and technical staff members working in the development of the program
- Make sure each site for DL is properly equipped with functional and accessible equipment. Provide a toll-free "hotline", if available, for reporting problems by providing an exclusive telephone number that is centrally staffed for technical problem solving
- Teaching materials must be prepared in advance; timing, variation, and smooth transitions must be planned. Teachers should allocate from 3 to 5 hours of preparation for each hour of distance instruction
- Diversify and pace course activities and avoid long lectures
- Provide a variety of activities, such as debates, polling, reflection, and critique
- Consider providing a strong print component to supplement non-print materials”  

6. Develop instructional materials

Technology should be adapted to the program curriculum, not the other way round. Both the technology to support DL delivery, and the program instructional materials, should be simple to understand, easy to use and maintain, adaptable to change and able to support complexity.

Instructional materials fall into three basic categories:

- **Tasks.** These are instructions to the student. These should provide simple, clear, step-by-step instructions that allow students to achieve a result. This addresses one of the four basic learning modalities – “Tell me what I need to do.” Adding a further layer of information to the instruction steps addresses a second learning modality – “Tell me how it is done?”

- **Additional reading and information.** Reading can be text, video, audio etc. Adding keyword links to short explanations and in-depth readings throughout the instructions addresses a third learning modality - ‘Tell me why it is done this way.”

7. See Toolkit Section D Item 2
8. See also Addendum 9. Delivering Distance Learning using Web-based technologies.
Assignments. These allow students to practice and apply their learning and experiment with new concepts. They can also be used to assess students’ achievement of learning outcomes. They address a fourth learning modality – “What if I try this?”

7. Facilitate program delivery and assessment

Effective distance teaching requires the enhancement of existing teaching skills to meet the special requirements of the DL environment.

The following tips will assist:

- Show enthusiasm. Teacher support and interest are critical to the success of DL
- Be available and promote interaction from and between students from the start of the course
- Encourage a learning community amongst students. Establish a friendly and effective learning tone early in the course
- Make the course user friendly by focusing on the students, not the delivery system
- Combine e-mail, two-way radio or telephone discussion with audio/video and printed materials to enhance the social aspect of learning
- Build group rapport and cohesion by introducing students to each other, matching them with partners, and assigning group projects
- Develop information management skills to assist students in selection and critical assessment of course materials and references
- Use learning contracts to establish goals for participation
- Foster learning-to-learn, self-directed learning, and critical reflection skills
- Be concise. Use short, cohesive statements and ask direct questions, realizing that technical linkages might increase the time it takes for students to respond.

8. Itemise and determine start up cost

‘Accurate costing and budget preparation can be particularly difficult in DL project design. There are numerous variables that must be assessed accurately before any estimate of costs can be made.’

Low cost and sustainability are important keys to success in setting up a DL program. There are three ways to measure cost efficiency:

- Average cost per student enrolled in program
- Average cost per graduate of the training program. (When drop out rates are taken into account, a single graduate will be more costly to produce.)
- Cost per student learning hour.

Fixed costs are the amount a DL program will need regardless of the number of students enrolled in the program. Variable costs are those that vary with the number of students enrolled.


10. Goldman: op cit n3, Section 5, Page. 35 (Emphasis added)
Start up costs to consider include the following items:

- **Selection of technology** - Printed materials, audio-cassettes, TV and video cassettes may be the lower cost options for small numbers of student numbers (250 or less). Consider radio programs, CD ROMS for larger student numbers (1000 or more). Computer based applications, Internet, email, video conferencing have a higher start-up costs (student workstations, computers, printers, ISP servers) but may prove less costly overtime.

- **Connectivity** - Connectivity is the process of transferring audio, video, data or print from the training centre to the student and then back again (feedback loop). Costs will depend upon the supplier and may be a large portion of the program budget. In rural environments, connectivity options are likely to be limited to:
  (a) optical fibre,
  (b) terrestrial landline (copper-wired) telephony, and
  (c) terrestrial wireless.

- **Depreciation** - Equipment and facilities will need replacing or updating. For lower-level technologies, most of the costs will include repair and replacement of worn out items (printed materials, audio and video cassettes).

- **Development of curriculum/instructional materials** - Very difficult to quantify costs, but some programs allocate as much as 70% of the budget to curriculum and instructional materials development, procurement, printing and distribution.

- **Student support services** - Cost estimates will depend upon the types, numbers and locations of students and be influenced by student need for start up and ongoing support.

- **Management support and administration** - Management of the central training site will include program administration tasks, (e.g. needs surveying, marketing, enrolment, record keeping, budgeting). Also field staff must be managed. (Support, training, site visits, problem solving, monitoring and evaluation)

9. **Identify ongoing costs/benefits**

**Costs**

In traditional education staffing and teaching salaries account for up to 90% of the total recurrent program costs. The use of technology may decrease the number of teachers required and provide a savings in salaries, but will increase the costs for curriculum and instructional materials development and program delivery. Generally about 25% of a budget for a DL program would be used for equipment purchases and the remaining 75% would be used for instructional content development and delivery costs.

11. See also Addendum No 9. Delivering Distance Learning using Web-based technologies
Major ongoing costs would include:

- Program operation and delivery to and from the central and field sites
- Program administration
- Student support services
- Institutional management.

Benefits

Benefits can be:

- **Performance-driven benefits** that measure increased student enrolments, learning outcomes achieved, student/instructor satisfaction and return on investment

- **Value-driven benefits** include increased quality and access to training services, flexibility and ease of use

- **Societal benefits** might include such things as reduced traffic to campus, the opening up of new markets, access to education for girls or reduced inequalities between rural and urban areas.

An example of a cost/benefit analysis of student enrolment following the introduction of a DL program would be:

‘Costs can be estimated on a per-student basis and then aggregated to provide the estimated costs derived from the use of DL. This can then be compared with the costs that would have been necessary to provide the same increases in quantitative enrolment through traditional means.’

10. **Identify funding and financing arrangements**

A realistic business plan for a DL project will need to be developed.
‘Without a viable plan for sustainability, the implementation risk should be considered too high for Bank financing.’

12. *It is not possible to provide detailed costings for the production of instructional materials such as audio and video Recordings, radio and TV broadcasts etc in this brief overview. However the Rural Distance Learning Toolkit – World Bank Development Project 2004 – ‘Analysing Costs and Benefits’ does give a useful breakdown of fixed and variable costs. The World Bank, 1818 H Street N.W. Washington, D.C. 20433 U.S.A.*

13. **Goldman:** op cit n4, Section 9, Page. 13

14. **Goldman:** op cit n5, Section 5: Economic Analysis and Rationale for a Project, Page. 7 (Emphasis added)
Possible funding sources could include:

- Bank loans
- Public and private partnerships with well-financed universities, schools or colleges
- Major international corporations, bilateral development organisations
- National and local government grants.

11. Undertake financial management and monitoring

Financial management and monitoring is primarily concerned with managing and improving the cost-effectiveness of the DL project.

Principal costing items to be monitored will include:

- **Program development** - Training needs surveying/ DL technology surveying/ curriculum development and procurement/ instructional materials developed and procured/ staff training/training facilities and resources

- **Program delivery** – Marketing/student enrolment and drop out/student support/ delivery of instructional materials/ teaching and facilitation/technical problem solving

- **Program evaluation** – This should use performance indicators to measure inputs, processes, outputs, outcomes, and impacts of the DL program. When supported with sound data collection, analysis and reporting, these indicators should allow you to track progress, to demonstrate results and to take corrective action to improve service delivery.

15. See Toolkit Section D Item 4, Program evaluation
How do I organise and administer a DL program?

12. **Investigate the resources needed to deliver a DL program**

In deciding upon the resources necessary to conduct a DL project you will need to know:

- The number and characteristics of students to be served
- The number of teaching staff needed to deliver the program
- How the curriculum will be developed and delivered
- The type of technology needed to deliver the program
- The requirements for operating and maintaining the DL program.

The administrative structure should provide:

- A governing body to oversee quality and sustainability of the project
- Day to day administration to coordinate teaching services, staff training and student support services
- Financial administration to procure and manage funds, income and expenditure
- Facilities and equipment needed to develop and deliver DL programs
- Monitoring and evaluation processes.

13. **Identify suitable DL delivery technologies**

Most remote areas and rural communities in developing countries do not presently have the telecommunications infrastructure to support higher-level technologies. Program designers will generally need to use lower-level technologies. The following questions will need to be considered:

- What are the technologies that currently exist within the service area?
- Which of these can be made accessible to the student population?
- What other lower-cost technologies could be used?
- What implementation issues need to be addressed?

You will need to research the strengths and weaknesses of the instructional delivery systems available in your area (e.g., audio, video, data, and print) as well as the technical means by which they are delivered (e.g., satellite, microwave, fibre optic cable, etc.).

It is important to analyse the advantages and disadvantages of delivery options in relation to student needs and the course requirements before selecting a mix of instructional technology.

Your program delivery methods will be directly related to the types of communication technology available. Remember that a successful DL program needs to incorporate interaction between students and teachers.

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16. See also Addendum No 9. Delivering Distance Learning using Web-based technologies
High-level technology systems have excellent tools to support two-way communication. Electronic communication may take the form of audio, video, email, virtual classrooms and teleconferencing. The two main types of electronic communication between students and teacher and are:

- **Synchronous communication** refers to students and teachers communicating with each other in real time (e.g. Web-based chat rooms/ teleconferencing and video-conferencing)
- **Asynchronous communication** refers to students and teachers communicating at different times. (e.g. email correspondence, web forums/newsgroups/bulletin boards, audio and video recordings).

Commonly used communication methods are:

- **Email** – used for delivery of course materials, sending in assignments, getting and giving feedback and asynchronous discussion groups
- **Educational website forums/bulletin boards/newsgroups** - used for discussion of special topics; downloading of course materials or tutorials, interactive synchronous and asynchronous tutorials
- **Link websites** - used to provide online databases and library catalogues to help students acquire information and pursue research related to course study.

However these sophisticated electronic systems are costly to sustain and many developing countries do not have the technology infrastructure to support their use by training providers. Fortunately there are less costly alternatives.

Low-level technology systems

‘Rural communities are most willing to accept distance learning programs that use technologies that currently exist in the community.’

These may include:

- Local radio
- Telephone
- Mail service
- Audio tapes
- Video tapes/DVDs.

These may have difficulties with achieving interaction between students and teachers, but if used in combination with face-to-face learning they can be effective.

‘An example would be a local teacher using video tapes/DVDs or CD-ROMS in the classroom with a two-way wireless radio that provides feedback to and from a DL instructor located in a central city’

17. See Toolkit Section D Item 3: Technology Checklist
18. Goldman: op cit n6, Section 5 Technology and Maintenance, Page. 29 (Emphasis added)
19. Goldman: op cit n7 Section 5 Economic Analysis and Rationale for a Project Page. 26 (Emphasis added)
“When I am pressed to say what I think is the most cost-effective teaching medium (for DL), I tend to answer, audio cassettes plus print. I believe that audio cassettes are the most under-rated technology of all in open and distance learning.”

14. Identify staffing and staff training needs

The following staff duties are likely to be required for a DL project:

- Training institution management
- Program co-ordination
- Teaching, tutoring, program facilitation
- Curriculum design
- Instructional technology design
- Technical problem solving and maintenance.

Staff training

Program administrators, teachers and other key instructional staff, should be knowledgeable about the content, the technologies, the instructional methods and the individual needs of the learners to provide effective DL programs. Staff may need training in the following areas:

- Surveying and needs analysis
- Marketing and advertising
- Student recruitment and selection
- Student counselling and support services
- Student assessment
- Program and teacher evaluation
- Program sustainability through fund raising and cost recovery
- Teaching technology
- Uses of technology to enhance classroom instruction
- Development of instructional materials
- DL teaching approaches.

15. Identify student support service needs

Student support services are critical to the success of a DL program. They should include providing comprehensive course information, including details on enrolment, assessment, career guidance and counselling, technical support, and job placement where appropriate.

‘Students should be able to contact someone easily and quickly whenever materials fail to arrive, tutors fail to mark assignments, the communal television set is broken or personal problems arise. They need easy access to information about programs and about how to enrol and withdraw.’

20. Goldman: op cit n8, Section 6, Planning for Effective Teaching in RDL, Page. 12 (Emphasis added)
21. Goldman: op cit n9, Section 6, Planning for Effective Teaching in RDL, Page. 9 (Emphasis added)
Prepare your students for DL

To function effectively, students must quickly become comfortable with the nature of teaching and learning at a distance. Efforts should be made to adapt the delivery system to best motivate and meet the needs of the students, in terms of both content and preferred learning styles.

- Ensure students are aware of and comfortable with the forms of communication to be used in the distance learning program
- Learn about students' backgrounds and experiences. Discussing the teacher's background and interests is equally important
- Be aware of the different learning styles of students, which may be difficult to determine in a distance learning program
- Be aware of different communication styles and varying language skill levels amongst students.
- Be sensitive to varied cultural backgrounds and remember that humour is culturally specific and won't be perceived the same way by all students
- Encourage students to take an active role in distance learning programs and take responsibility for their learning.

‘In virtually every RDL program, these costs are substantial and tend to be grossly underestimated.’

16. Organise administrative and record keeping requirements

Records may need to be kept for some or all of the following items: Student enrolments/ attendance/drop out rates/ learning progress/learning outcomes achieved/ assessment results/qualifications issued/ job placement following training.

17. Undertake program marketing and enrolment

DL program marketing is aimed at attracting students, gaining community support and attracting funding and benefactors to the project. Advertising information should itemise the benefits of the program to students, employers and local communities.

A selection of promotional activities may be used including public and community presentations; personal selling (door to door); advertising and publicity (newspaper ads and editorials, magazines, flyers, mail-outs, billboards, email, TV, Radio) Promotional gambits – (discounts, trade shows, free samples).

18. Monitor and evaluate quality of service delivery

Program monitoring involves routinely checking the progress of the DL project to confirm that activities are proceeding as planned or to indicate where variation is occurring and intervention is needed.
Monitoring is likely to include:

- **Monitoring the management of the DL program:** Finances, record keeping, student support services, use of instructional technology; equipment and resources, staffing needs and support

- **Monitoring quality-assurance:** This involves having established standards by which to measure service delivery, management and evaluation. *(See Manual Section D, Quality)*

*Program evaluation* involves collecting, analysing and interpreting information to judge the value of the program objectives, instructional materials, learning processes and outcomes, marketing and administrative activities. It uses both qualitative and quantitative methods.

The external efficiency of a DL training program examines outcomes in terms of how well a student does after leaving the program. This is often measured as the difference in potential wages earned over a lifetime as a skilled/trained worker compared to the potential before training.

Internal efficiency typically measures the average cost per student of operations leading up to graduation (or dropping out). The ideal is excellent internal and external efficiency to provide the highest possible rate of return on program investment.

### 19. Distance Learning and Mobile Training

Mobile Training has proven successful in delivering training to remote areas where there are limited local opportunities for training.

**Box 7 CASE STUDY**

**SKILL NEPAL (Helvetas Project)**

An Example of a Successful Mobile Training Program

SKILL has conducted 196 training events in collaboration with 113 local partners in 47 districts of Nepal. In the past 10 years 2723 people have been trained in different trades, with 86% gaining employment (surveyed through Tracer Studies) SKILL estimates that it costs about US$56,000 – US$70,000 per annum to conduct 25 – 30 training events.

SKILL recommends a pilot phase of about 5 years, costs and outputs can be expected to vary with different costs and distance travelled to training being significant variables.

Local partnerships are very important for success. Pre-employment training is conducted following a request from a local community group and after a labour market survey to determine if there are employment opportunities for graduates.
Mobile Training has the following benefits:

- training is available locally reducing costs for trainees
- training can be tailored to meet local labour market needs
- equity and access issues can be addressed eg women are more likely to attend locally conducted courses.

Mobile Training is expensive requiring human and capital resources, including modified vehicles. Highly skilled staff are needed to deliver mobile training.

A combination of distance learning and in-village (mobile) training would be a means of delivering continuing education and training.
CASE STUDY 5
Internet-based Distance Education Program Development in Vietnam

- “International Review of Research in Open and Distance Learning” (April -2004)
Ramona R. Materi and Patrick J. Fahy (Edited version)

Introduction This paper is a case study of the efforts of one college in Vietnam, Fisheries College Number 4, to develop a plan to introduce a small distance education offering to its regular courses. Its purpose was to better serve farmers in remote regions.

Background of Vietnam
With a population of 78 million, almost 80 percent of the workforce is involved in agriculture and lives in rural areas. In 2000, Gross Domestic Product (GDP) per capita was estimated at US $300 per year. With more than 75 percent of its population under the age of 30, it has numerous new students entering the primary and secondary schooling systems. It also has massive numbers of people to train in new technologies and practical skills to achieve economic development. Less than 25 percent of the total workforce is skilled labour. The shortage of skilled workers is endemic across industries outside of the agricultural sector.

Distance Education in Vietnam
Vietnam has been involved in distance education since the 1950s. Faced with swelling numbers of students and needs; the government is beginning to invest more in the sector. In particular, it believes that DE can be effective in promoting human resources training (Son, 2001).

In 1998-1999; approximately 800,000 learners participated in some sort of open learning or distance education offering. Much of the DE offered in Vietnam is print-based. Ha Noi Open University (HOU), for example, has regional teaming centres throughout the country. Students receive their materials by mail or pick them up from the centres. HOU also produces audio and video materials for select courses and has videoconference facilities, funded by the World Bank. It has a simple website, and sends emails to the regional centres for basic administrative matters.

The use of Internet for DE is relatively rare due to such constraints as:

- **Lack of Equipment/ Infrastructure:** In 2001, fewer than 100,000 people in Vietnam had private access to the Internet. For instance, only 10 percent of the students in the Faculty of Information Technology at the Hanoi State Open University had their own computer. Most use public-access computers in cyber cafes, which are ubiquitous: even small towns are likely to have access. Still, this access also has problems. Vietnam’s Internet backbone has only one major line between Ha Noi and Ho Chi Minh. and military traffic has priority. For the average user access can be grindingly slow and unreliable.

Continued…
Expense: In a country where average annual income is about $US 300, in 2003 a new desktop computer started at $US 800. Costs for Internet and telephone services are equally prohibitive when compared to average income. Relative to an on-campus student, a learner using the Internet for an hour a day would end up paying four to five times as much in fees.

Language/ Culture: Language barriers are also present. Users require a certain proficiency in English to log onto websites, participate in chat rooms, and gain access to the information resources of the Net. The Vietnamese Government also restricts access to certain sites.

Instructional Design Capacity: There are few capable DE instructional designers in Vietnam, and fewer still experienced designers of materials for the Internet. Through its Mekong Delta Facility, the World Bank is engaged in a year long project to enhance the print-based design skills of a select group of instructional designers. In 2004, this group will turn to CD-ROM technology. State-owned companies have these capabilities as well, but even they acknowledge the need for further skills training and upgrading.

Despite these constraints, Internet usage in Vietnam is growing. Infrastructure problems are being remedied with Asian Development Bank funding. Vietnam plans to install fibre optic networks in the Northern provinces by 2005. The rest of this paper will describe how one college is moving forward to use the Internet as a DE teaching tool.

The Challenges for Fisheries College Number 4 of Introducing the Internet

The Training Challenge

Located outside of Ha Noi, Fisheries College Number 4 is responsible for providing college level and continuing education courses to students and workers in the northern provinces of Vietnam. Its courses range from business and accounting to aquaculture, information technology, and food processing technology.

The fisheries sector is important to Vietnam, employing millions of people, contributing 5-10 percent of GDP annually, and nine to 10 percent of Vietnam's total exports. The government would like to increase the number of fisheries technicians by 20 percent between 2000 and 2010. The goal is to create jobs for two million people in aquaculture; at present, only 30 percent have been trained. In Vietnam, aquaculture is carried out at home in rural areas, with 45 percent of the workforce comprising women.

In support of this goal, the College has developed a one-week, in-person short course in aquaculture targeting farmers. Instructors from Ha Noi help locally based staff deliver the course, travelling to learning centres in rural areas. They are away from the college for up to one month at a time. The College has a large area where it houses various species in aquaculture ponds, which are used to train farmers and regular students. As part of the governments rural development efforts, courses for farmers are offered free of charge. Class sizes range from 45-100 people, with the College offering the sessions two to three times per year.
This current training model places pressure on college staff, learners, and facilities; increasing the number of classes. Instructors must travel frequently in rural areas along roads crowded with carts, bicycles, and slow moving trucks, making for long, tiring, and dangerous journeys. Students also face difficult travel conditions and many must also be away from home and family responsibilities for extended periods.

To alleviate these problems, the College approached the Canadian International Development Research Centre (IDRC), seeking funding for the use of ICT to meet the needs of farmers. The first author was the consultant who carried out the development of a DE plan and funding proposal.

**Training Needs Assessment**
A basic needs assessment revealed the following issues related to the implementation of ICT in distance education:

**Teaching and Learning:** The College had worked previously with Canadian donor agencies. As a result, it had a selection of audiovisual equipment and had produced 12 courses using systematic instructional design techniques. College instructors had minimal to non-existent experience with DE courses. None had ever developed materials for such courses, nor instructed in them. Some had basic computer and Internet skills, but only two IT instructors were acquainted with the technology.

Student skills were equally limited. Farmers ranged in age from 25 to 65, and their computer skills were almost non-existent. All, however, had excellent literacy skills; the United Nations Development Program estimates literacy rates in Vietnam at more than 90 percent.

**Technical Considerations:** In Ha Noi, the College has a computer lab with relatively new computers. Only two computers, however, were connected to the Internet. Connection speed was 11.5 Kbps, excruciatingly slow and unsuitable for DE activities.

The College has spent more than US$750,000 developing an extension training centre in Quang Ninh, a province about three hours from Ha Noi. In September of 2002, navigating the road required a four wheel drive vehicle after any rainfall. One building had a large room, which with air conditioning and rewiring upgrades, could accommodate a computer lab. Tests for connectivity at the College showed that speeds of 28.8Kbps were possible. The extension centre, however, had no computers.

**Management:** For more than 40 years, the College had specialized in face-to-face training. No one had experience in budgeting for, planning, or administering DE programs, or seeing to student needs and related matters. If handled badly, introducing DE as well as the Internet could thus pose imposing organisational challenges.

**Cost and Budgets:** Funds for education in Vietnam are limited. As such, the College would have to rely on outside, foreign donors to provide the financing necessary to train staff and purchase necessary equipment.

Continued…
The Proposed Solution
The College decided to offer learners the option of taking the aquaculture course through DE. The College proposed a blended approach, whereby students would receive theoretical and supplemental information through DE, and the practical portion via face-to-face instruction in the field.

Specific Objectives
The overall objective of the project was to pilot the use of ICT tools in support of DE in rural areas of Vietnam. In addition, the project was designed to demonstrate the effectiveness of blended training as a development educational tool with rural adult learners.

The College would establish a DE teaching centre on its main campus, with computers connected to the Internet. College instructors would use this teaching centre to create DE materials for Internet delivery, respond to student inquiries, and conduct research to help them develop courses with the latest scientific and technical information.

The College would set up a second DE centre at its Quang Ninh extension centre. For the pilot course, farmers would still attend classroom and field sessions. In addition, they would receive training in computer and Internet skills, and have access to supplementary materials that College instructors develop. This material would include information on aquaculture theory and techniques, as well as relevant information on Ministry of Fisheries programs.

The technologies the College plans to use include:

- Microsoft FrontPage for development of Web-based course information
- Adobe Acrobat for the development of PDF files for the course website
- Computers networked in a local area network, connected by a server to the Internet.

Phase 1: Preparation

*In this phase, lasting approximately eight months, the College will work with stakeholders, a local Internet Service Provider (ISP) NetNam, and foreign consultants to develop staff capacity in Internet technology and DE training. It will also set up the distance learning centres. Major activities will include:*

- **Stakeholder Meeting:** To start the project, the College will hold a three day meeting with staff, farmers, Ministry of Fisheries officials, and other interested parties, to inform them of the project and to discuss and conduct detailed planning for project activities.
• **Establishment of Internet-Connected DE Centres**: The College will contract with NetNam to develop two Internet-connected DE centres, one in the College and one its Quang Ninh extension centre.

• **Staff Workshops/Formal Training in ICT Technologies**: NetNam will provide workshops on network administration, basic computer and Internet skills, and webpage construction skills to pertinent staff.

• **Staff Training in DE**: An international consultant will provide a one-week Workshop (delivered in a two-week timeframe to allow for translation time) to 20 College instructors on the development of teaching materials for the Internet. Using the existing course for farmers, the consultant will work with instructors to show them how to use materials from the Internet and paper sources, and use them to create an attractive and useful educational website that supports classroom teaching.

• **Additional Training in Canada**: Two College aquaculture instructors will receive advanced training in the latest ICT distance education techniques through on-site training in Canada. Training will take place at one or two selected institutions, over a period of two weeks.

• **Development of Online Course Materials**: College instructors will prepare appropriate Web-based materials for the course.

**Phase II - Implementation**

The process in the second phase, implementation, lasting approximately 14 months, will consist of:

• **Course Delivery**: The College will use Internet technology to deliver the course two to three times in each centre, to classes of between 45 and 100 students. Farmers will have access to the labs over the entire week and will be able to review Web-based materials in shifts, as computers are available. For example, one group may attend a field session, while another group works in the computer lab.

• **Course Revisions and Adjustment**: After an initial round of courses, the College will revise course materials, with the help of an international advisor, who will visit for one week.

Continued…
Monitoring and Evaluation
The College will undertake several activities to evaluate project quality. The areas it will assess include:

- **Learner and Instructor Satisfaction:** Internet supported courses will be new to students and instructors. The College will use questionnaires, focus groups, and interviews to gather data on their reactions, experiences and suggestions for improvement.

- **Equipment/ Internet Reliability:** Administrators of the DE centres will log equipment breakdowns, Internet service interruptions, electricity failures, and other technical difficulties that may affect the College's ability to deliver the course.

- **Feasibility of Project Expansion:** At the final stakeholder meeting, participants will discuss and evaluate the possibility of the College expanding online courses to its students, as well as the potential of offering courses to other students enrolled in other fisheries colleges in Vietnam and elsewhere.

Outputs from the project will include:

- Establishment of a DE centre at the Fisheries College Number 4 main campus, and at Quang Ninh.
- Development of Vietnamese language Web-based course materials for aquaculture training.
- Capacity building for College staff in network administration, Internet and Web design skills, and ICT-supported distance education.
- Capacity building for students in computer and Internet skills, and the latest techniques in aquaculture.
- Report assessing the viability of ICT supported DE in Vietnam's rural areas.

Project Beneficiaries

- **Farmers:** The computer and Internet skills farmers gain may help them in other ways in the future. As e-commerce in Vietnam develops, they will have access to market information to help them receive a better price for their product. Since aquaculture is more profitable than traditional rice fanning, farmers may eventually be able to purchase their own computers to access valuable information on aquaculture from the College website.

- **Instructors:** By reducing the need to travel, instructors will have more time for teaching and other duties. They will also gain computer and Internet research skills, and enhance their teaching and instructional design skills for DE courses.
- **NetNam**: NetNam will use this project to further its research to adopt Internet tools and resources for Vietnamese conditions.

- **Fisheries College Number 4**: By increasing its capacity to meet learner needs, reduce costs in the long term, and pioneer innovative teaching methods, the College will gain prestige and increase capacity to assist other colleges and universities in Vietnam to enhance their DE skills.

- **Ministry of Fisheries**: The Ministry will have access to innovative and necessary training to promote its goals of poverty reduction and increased employment for the Vietnamese people in the fisheries sector.
Box 9  CASE STUDY 6  

MOBILE TRAINING IN BITHOOR INDIA

Bithoor, India August 27, 2004

For 12-year-old Anju Sharma, hope for a better life arrives in her poor farming village three days a week on a bicycle rickshaw that carries a computer with a high-speed, wireless internet connection.

Designed like temple carriages that bear Hindu deities during festivals, the brightly painted pedal-cart rolls into her village in India's most populous state, accompanied by a computer instructor who gives classes to young and old, students and teachers alike.

"By using computers, I can improve my knowledge," Sharma, whose parents plan to pull her out of school at 15, said in Hindi, before joining a class on web cameras. "And that will help me get a job when I grow up."

The bicycle cart is the centre of a project called Infothela, or info-cart. It aims to use technology to improve education, health care and access to agricultural information in India's villages, where most of the country's 1.06 billion people live.

Conceived in 2003 by the Indian Institute of Technology in Kanpur, about 16km southwest of Bithoor, the project is funded by the national government and provides free computer classes in six villages here in Uttar Pradesh state.

Another computer on a pedicab is being used in an experiment to help doctors in Lucknow, the state capital, provide consultation to villagers through video-conferencing in nearby Saroha village. A project to disseminate the latest crop prices and farming methods is also being developed.

In Bithoor, on the banks of the Ganges River in northern India, manual labour is the alternative to farming and annual incomes rarely exceed 6000 rupees (US$126). Sharma's teachers make only 500 rupees (US$10.50) a month. Young people look for jobs in cities, but often lose out to better educated urbanites.

"Computers and internet open up new opportunities for these villagers," said Laity Dutta, a project official.

With only 12 computers and four internet connections per 1,000 people, India has one of the world's lowest internet usage rates and much of rural India remains oblivious to the sweep of technology. But the villages involved in Infothela all lie within an 80-km wireless corridor created by the Institute of Technology and linked by high-rise Wi-Fi antennae and amplifiers along the highway.

Continued…
Until recently, such technology was the privilege of a tiny section of Indians - engineers in the country's software hubs who earn more money while in their twenties than Bithoor farmers do in a lifetime.

India churns out 300,000 engineers each year and is a growing software power, but farmers are the backbone of its economy. Infothela seeks to break the disparity that confines access to technology and growing affluence to the cities.

Many Indian villages are poorly wired - telephone lines can go dead for weeks at a time - making wireless technology the most reliable web connection.

The mobility of a cycle rickshaw, which is light enough to cross muddy, potholed roads, ensures that the same computer and internet connection can be used by people in several neighbouring villages. The Infothela cart has a specially designed frame and cushioning to protect the computer and accessories from the bumpy ride.

"The mobile platform is necessary to reduce cost of ownership because the resources are shared by a larger population. It is also necessary to push information to women and elderly people who can't travel outside their village," said Manoj Kumar, a project manager.

The service is free for now, but fees will eventually be charged, Kumar said.

A few kilometres from Bithoor, another cycle rickshaw carries its high-tech load to Gorahah village, where men and women gather side-by-side for a class on electronic mail. The mix is nothing short of a revolution in tradition-bound rural India, where women are often kept indoors.

We are now learning computers. There is no point if we can't use that new knowledge. We have to go out and do something worthwhile," said Snehalatha, 22, who also attends college.

Clad in orange pants and a pink tunic, Snehalatha signs up for Yahoo mail, as an impatient queue lengthens behind her.

The classes teach the basics of computing, word processing, spreadsheets, internet browsing and web cameras. Once they learn to use a webcam the villagers can take part in online classes, something the info-cart organisers hope to implement later.

The simple lessons are a big privilege in an Indian village, where half the population can't read or write.

"I want to work and make a name for myself. I want to see the world," she said, adding that she hopes to get a job in the city and then travel more widely.

Distance Learning Glossary and Abbreviations

asynchronous - (digital communication) those involved in communication do not need to be present and available at the same time. Examples include email, web forums/newsgroups/bulletin boards, audio and video recordings.

CD-ROM (compact disk–read only memory) is a disk that can store a large amount of text, audio, video and graphic information; a computer needs a special drive and software to display these materials.

Computer-based training (CBT) is a generic term for various kinds of stand-alone (that is, non-networked) learning applications using computer software.

Critical reflection skills are action learning skills that require the learner to challenge the assumptions which govern how they normally think and act and find new ways to analyse and interpret their experiences.

Curriculum is the total structure of knowledge, skills and educational experiences that make up any one educational system or its component parts.

DL – Distance Learning

DVD – Digital video disc

eLearning (electronic learning) – educational resources usually delivered over the internet and typically accessed using a web-browser (software) and a web-monitoring device (computer, or Bluetooth enabled communication device connected to the internet). eLearning resources can also be published on CD-ROM for access by computers not connected to the internet, however asynchronous events are not possible.

Electronic mail (e-mail) is the exchange of information from one computer to another using software that is designed to store and forward messages received or sent.

Fibre optic cable is a technology that transfers voice, video and data by sending digital pulses of light through hair-thin strands of flexible glass.

hyperlink – a function applied to digital object (text/image) that allows readers to jump from one section of a document to another by clicking on the linked object.

Normal is a worldwide collection of computer networks that use a common communication protocol and addressing scheme to share resources with one another. It is owned by no one and is maintained collectively by the individual, national, regional, commercial and institutional networks that make it up. It is a learning, information and business tool.

ISP – Internet service provider

Learning contracts are agreements between teacher and students used to encourage active participation in training programs. They often relate to how assessment will be carried out.

Learning modalities – The questions why, what, how and what if indicate a motivating factor behind an individual’s desire to learn (engagement).
**Learner types** – an auditory (sound), visual, or kinaesthetic (touch) learning preference indicates the type of medium that can more successfully engage an individual.

**Mentor** – person(s) who provides feedback and suggestions for staying on track, usually has specific expertise but is not concerned with assessing or monitoring student’s progress.

**Microwave** is a high-capacity transmission system that sends information on high-frequency radio signals called microwaves. Originally, microwave systems offered only analogue transmission. Today, they are commonly digital.

**RDL** – Rural Distance Learning

**Satellites** orbit in space and receive radio signals from stations on Earth and re-transmit them to Earth stations at distant locations.

**Self-directed learning** is a training method which encourages the student to take responsibility for how they will learn, the establishment of learning goals and the time taken for completing tasks.

**Synchronous** - (digital communication) those involved in communication are present at the same. Examples include web-based chat rooms, instant messaging, teleconferencing and video-conferencing.

**Telecentres** (multimedia centre, public calling centre, community access centre) is a public location where people can access a range of communication tools and technology.

**Telecommunications** is the transmission or reception of signs, signals, images, sound or intelligence of any kind over wires, by radio waves or by another technical system.

**Trainer** – person(s) responsible for setting learning outcomes and assessment criteria, will be monitoring and assessing the student’s progress.

**Tutor** – person(s) with subject matter expertise engaged to instruct on specific learning outcomes.

**Two-way radio** combines educational broadcasts with some form of telecommunications or uses two-way radio links to enable learners to interact with teachers and other learners.

**VET** – Vocational Education and Training.

**Video conferences** are technological arrangements in which television monitors, cameras and microphones are linked so that people in three or more sites can all see, hear and speak to one another.

**World Wide Web (WWW)** is a communication protocol of the Internet that deals with text, audio, video, animation, graphics and colour or anything else that a computer program can produce.
Distance Learning References

Books and Papers

Goldman, Judy (Editor): **Woo, Sonya; McGough Robert; De León-Jones, Elizabeth; Bates, Tony; Moock, Peter:** “Rural Distance Learning Toolkit” - A Guide to the Identification and Preparation of Rural Distance Learning Projects Featuring Low-Cost, Appropriate Technologies and Approaches, The World Bank, 1818 H Street, Washington, D.C. 20433 U.S.A. 2004


Willis, Barry: **“Distance Education – A Practical Guide”**. Englewood Cliffs, NJ Educational Technology Publications, 1994

Distance Learning Websites

[www.distancelearningnet.com](http://www.distancelearningnet.com)

[www.knowledgeability.biz/weblearning/](http://www.knowledgeability.biz/weblearning/)

[www.distance-educator.com](http://www.distance-educator.com)

[www.e-learningcentre.co.uk](http://www.e-learningcentre.co.uk)

[www.e-learningguru.com/links.htm](http://www.e-learningguru.com/links.htm)


Resources: [http://www.col.org/resources/](http://www.col.org/resources/)

International Centre for Distance Learning (ICDL): [http://icdl.open.ac.uk/](http://icdl.open.ac.uk/)

[http://cctc.commnet.edu/HP/pages/darling/journals.htm](http://cctc.commnet.edu/HP/pages/darling/journals.htm)


OneWorld.net: [http://www.oneworld.net/](http://www.oneworld.net/)
The following websites provide students with a questionnaire to assess their suitability for distance learning.


http://www.gccnj.edu/distance_learning/FAQ/questionnaire.htm

The following site provides organisations with information on distance learning start up issues and cost analysis:

http://www.col.org/resources/startupguides/knowledge.htm

Web based learning articles


McKey P. “Preparing Information Systems for Global Web-based Education” - 2000

McKey P. “7 Tips for Successful Online Learning” 2000

McKey P. “The Development of the On-line Educational Institute” 1997

Mayor T. “Elearning – Does it Make the Grade?” - CIO Magazine - Corporate Training archives. 2001
http://www.cio.com/archive/011501/grade.html

Distance Learning Bibliography


D Costing and Pricing of VET Services and Products

4. Assessment

OVERVIEW

A definition of Assessment

Assessment is the formal process of judging students' achievement of learning outcomes following a period of study. Formal assessment uses sound measurement procedures and techniques to interpret and evaluate students' performance against a recognised standard of performance.

Assessment takes two forms:

i. Institution or school based assessment
ii. On-the-job assessment.

As institutions have experience with school based assessment, we will focus in this section on on-the-job assessment.

Competency-based assessment

A number of countries (Australia, Mexico, United Kingdom) use national, state or regionally developed competency-based standards as the basis of both VET training and assessment.

Competency Standards are industry ‘benchmarks’ for the performance of workplace tasks. They define and describe the skills, knowledge and attitudes an individual needs in order to demonstrate their competent performance and productive capacity in workplace tasks.

Competency-based assessment assesses peoples’ ability to perform specific work tasks according to these industry competency standards. Three key areas of competence form the basis for assessment:

- **Skills** – the ability to carry out specific tasks to the required standard of performance. Also included are the generic skills 1 required for work performance
- **Knowledge** – the essential theory and ‘know-how’ required to perform tasks to the required standard
- **Attitudes** – the ability to perform tasks productively, in a safe and effective manner, and according to established workplace procedures and recognised industry standards.

1. See Manual Addendum 1, Generic Skills
Figure 4

A Competency-based assessment system:

Assessment Candidates
Students, employees, apprentices wanting to demonstrate competent performance at work tasks

Assessors
Workplace and institution-based assessors qualified in specific industry areas

Candidates provide consistent and sufficient evidence of competence to meet the industry Standard

Assessors gather and interpret evidence of a candidate’s competence to judge whether it meets the industry Standard

Competency Standards
National, State or regionally agreed performance standards for work tasks within an industry area

What is in this section of the manual?

- The following pages explain the different types, components and processes of work-based assessment and give an indication of the costing factors involved in planning, conducting and reviewing on-the-job competency-based assessment as part of your VET services.

- **A Toolkit comprising:**

  Item 1. Flow chart for workplace ‘on-the-job’ assessment
  Item 2. Example of an industry competency standard
  Item 3. Examples of competency-based assessment tools
  Item 4. A VET Assessor roles and skills checklist
  Item 5. Assessment Case studies

  1. Working in partnership with industry
  2. Tasmanian College of TAFE
  3. West Coast College of TAFE
  4. Central Gippsland Institute of TAFE

- **Glossary of terms and abbreviations**

- **Bibliography and websites**
Different types of assessment

Competency-based assessment is used to identify peoples training needs; to provide recognition for their previous learning experience (RPL) \(^2\); and to award qualifications at the end of a period of training. Assessments are carried out with apprentices and trainees, workplace employees and institutional training program students.

The three main types of assessment are:

- On-the job assessment
- Off-the job assessment
- Recognition of prior learning assessment.

What do competency-based assessors do?

An assessor must first establish what evidence to collect and how it will be collected. Evidence is the information gathered about a candidates’ ability to perform a work task to the required standard. This evidence provides the assessor with the basis for making a judgement of the candidates’ competence.

Deciding WHAT evidence to collect

Evidence is gathered about the candidates’ skills at performing the task, their knowledge of the task, as well as their workplace attitudes, values and behaviour. This evidence is matched against the competency standards for which the candidate is being assessed and judged as to whether it meets the required standard.

Gathering quality evidence in assessment

When establishing what evidence to collect, and when gathering and judging evidence of competence, the assessor should ensure that it meets four basic rules of evidence. These four basic rules of evidence must be met in order to ensure a quality assessment process. The assessor should collect:

Valid evidence

Valid evidence does the job. To ensure validity, the candidate’s evidence of competence must relate directly to the competency standards being assessed as well as to real workplace activity. The evidence should embrace all ‘dimensions of competence’ \(^3\) as they relate to actual work practice.

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2. See RPL Section D of this Manual
3. See Glossary section for a definition of the dimensions of competence
Sufficient evidence

Sufficient evidence means there is enough to confirm competency. To ensure sufficiency, evidence must cover the full range of task performance identified in the competency standards. The evidence should demonstrate consistent performance by the candidate over a period of time and in different workplace contexts.

Current evidence

Current evidence is up to date. To ensure currency the evidence must show that the candidate is currently able to apply the skills and knowledge necessary to demonstrate competency at the task. Currency of evidence can be an issue in recognition processes where the candidate is providing historical evidence of competence.

Authentic evidence

Authentic evidence is the candidate’s own work. To ensure authenticity, evidence must be checked to prove that it was the work of the candidate. Assessors may need to get confirmation from supervisors, trainers, educational institutions and employers to check the authenticity of qualifications, references, and licences.

Deciding HOW to collect evidence of competence

The four basic methods used by assessors are:

1. Observing actual workplace performance, or simulated workplace activities and recording what is witnessed in a manner consistent with the requirements of the competency standards being assessed. Performance checklists are often used as assessment tools for observation of work tasks.  

2. Examining and reviewing finished products, including portfolios of completed work projects. Checklists are used for checking that finished products meet the required standard.

3. Asking questions of the candidate, in verbal or written format to gather evidence of the candidates underpinning knowledge of the task being performed. Lists of verbal questions, test and examination questions, quizzes, case studies and problem solving activities are used as assessment tools.

4. Interviewing other people who know about the candidates work abilities and examining information about the candidate provided by third parties such as supervisors, line managers, trainers, work colleagues. Supervisor reports and testimonials are examples of evidence collected by assessors.

4. See Toolkit Section E, Item 3. Performance checklist
5. See Toolkit Section E, Item 3. Verbal Questions checklist
6. See Toolkit Section E, Item 3. Third Party checklist
Once an assessor has established what evidence to collect and how to collect it, he or she needs to design instruments and instructions for gathering and recording the evidence of competence. Assessors can develop their own assessment tools or customise tools developed by other assessors.

Assessment methods and tools should be designed in consultation with enterprise employers, supervisors and trainers to ensure that they match the specific workplace context without compromising recognised industry competency standards.

No single assessment tool should be relied upon to provide a full picture of competence. Each tool is designed for a specific purpose. For example when conducting a workplace observation of a candidate performing a task, a good tool to use is a performance checklist. This checklist allows the assessor to systematically record what is observed and match it against the competency standard requirements for job performance.  

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**Box 10**

The Australian experience:
On-the-job Assessment

In Australia over 90 major industries have developed national Training Packages that describe the competency standards for all areas of work within their industry from basic workplace tasks to managerial level tasks.

Specific work task competency standards are described as ‘units of competence’ and these are parcelled together to make up national qualifications ranging from Certificate I level to Advanced Diploma.

For example the Service Industry Skills Council of Australia has an endorsed National Training Package for the Retail Industry. A unit of competence from that package is: **WRRCA1B: Operate retail equipment.** This unit forms part of the Certificate II in Retail Operations. *(See Toolkit Section E, Item 2)*

The unit of competence provides both trainers and assessors with the core information they require to train and assess candidates who wish to qualify as shop assistants.

An important part of the Unit of competence is the evidence guide. This provides detailed information to the Assessor about the critical aspects of evidence and the skills and knowledge that need to be demonstrated by the candidate. It also gives guidance as to how the assessment should be carried out and what resources are required for the assessment.

In addition, the Training Package from which the unit is taken gives further important information about how assessments should be carried out in that industry area in a section entitled ‘Assessment Guidelines’.

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7. See Manual page 128, example of assessment tools
The following tables show how different assessment tools can be used to gather different forms of evidence using a range of assessment methods:

### Table 5  ASSESSMENT TOOLS

<table>
<thead>
<tr>
<th>Forms of Evidence</th>
<th>Assessment Methods</th>
<th>Assessment Tools</th>
<th>What is the tool designed to do?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Workplace observation</td>
<td>Performance checklist</td>
<td>Assess elements of competence, performance criteria, underpinning skills, dimensions of competence</td>
<td></td>
</tr>
<tr>
<td>Simulation scenario</td>
<td>Simulation scenario instructions for candidate and assessor Performance checklist</td>
<td>As above</td>
<td></td>
</tr>
<tr>
<td>Video of workplace performance</td>
<td>Performance checklist</td>
<td>As above</td>
<td></td>
</tr>
<tr>
<td>Presentation/Skill demonstration</td>
<td>Performance checklist</td>
<td>As above</td>
<td></td>
</tr>
<tr>
<td>Verbal questioning</td>
<td>Specific response questions: (Yes/no, correct/not correct, What are…where would…what is…) Detailed response questions (What would you do if…How would you…)</td>
<td>Assess underpinning knowledge/dimensions of competence/generic skills Knowledge of task procedures Knowledge of Health &amp; Safety standards</td>
<td></td>
</tr>
<tr>
<td>Interview</td>
<td>Prepared questions</td>
<td>As above for verbal questioning</td>
<td></td>
</tr>
<tr>
<td>Candidate’s self assessment</td>
<td>Self assessment checklist</td>
<td>Assess candidates awareness of own strengths/identify skill gaps/identify where further evidence can be provided</td>
<td></td>
</tr>
</tbody>
</table>

Continued…
<table>
<thead>
<tr>
<th>Indirect Evidence</th>
<th>Product examination</th>
<th>Product checklist</th>
<th>Assess consistency of standard of finished products</th>
</tr>
</thead>
<tbody>
<tr>
<td>Written questions</td>
<td>Specific response questions (True/false; Multiple Choice; Fill in the gap) Detailed response questions (Exam, test, assignment, short answer)</td>
<td>As above for verbal questioning</td>
<td></td>
</tr>
<tr>
<td>Assignment tasks</td>
<td>Assignment tasks/questions Model answers</td>
<td>As above for verbal questioning</td>
<td></td>
</tr>
<tr>
<td>Portfolio of work</td>
<td>Model portfolio Portfolio items Checklist</td>
<td>Assess breadth and consistency of standard of completed work</td>
<td></td>
</tr>
<tr>
<td>Supervisors report</td>
<td>Third party evidence checklist Prepared questions</td>
<td>Assess candidate’s application of skills, work attitudes, generic skills. Provides additional evidence of consistency of standard of candidates work or Assessment evidence where direct evidence is not appropriate</td>
<td></td>
</tr>
<tr>
<td>Colleague reports</td>
<td>Evaluation forms Third party evidence checklist Prepared questions</td>
<td>As above for Supervisor report</td>
<td></td>
</tr>
<tr>
<td>Role play</td>
<td>Prepared scenario Follow-up questions</td>
<td>Assess problem solving skills, contingency management skills, underpinning knowledge</td>
<td></td>
</tr>
<tr>
<td>Case studies</td>
<td>Case study and questions Model answers</td>
<td>Assess above for role play</td>
<td></td>
</tr>
<tr>
<td>Research project</td>
<td>Research topics and guidelines</td>
<td>Assess higher levels of competency Dimensions of competence</td>
<td></td>
</tr>
</tbody>
</table>

Continued…
Conducting an assessment event

As mentioned previously, assessments are conducted in one of three scenarios:

- On-the job assessment
- Off-the job assessment
- Recognition of prior learning assessment.

RPL assessment is examined in another part of this manual and most training organisations are familiar with some form of institution or classroom-based assessment, so this section will focus upon ‘on-the-job’ or workplace assessment.

There are six basic steps to follow when conducting an on-the-job assessment with a candidate. These are outlined below.

- **Briefing the candidate** – The assessment event briefing is an opportunity to put the candidate at ease; to go over the steps in the assessment process, and explain what the assessor will be doing and what is required of the candidate.

- **Gathering the assessment evidence** – Gathering evidence should be an efficient, cost effective process in which the assessor takes a strategic approach and looks to find immediate indications of competence. The critical aspects of evidence should indicate that the candidate is competent in all elements of the task and can work safely and to a consistent standard of quality. The assessor must record evidence of competence accurately using their assessment tools, noting down skill or knowledge gaps if they are observed.

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8. See Manual Section D, RPL
9. A detailed flowchart of a workplace assessment process is provided in the Toolkit Section E, Item 1.
• **Evaluating the evidence** – This should be done against the requirements of the competency standards being assessed. The assessor should take time out to weigh the evidence to see that it meets the four rules of evidence mentioned earlier and that there is consistent demonstration of competence over a period of time.

• **Making the assessment decision** – Once sufficient time has been given to evaluating the evidence of the candidate’s abilities, the assessor should be ready to make an assessment decision. In the competency-based system the candidate is found to be ‘competent’ or ‘not yet competent’.

• **Giving feedback to the candidate** – The assessor needs to give accurate and constructive feedback to the candidate. Constructive feedback should include:
  
  • Tell the candidate the overall result (competent/not yet competent)
  • Be positive. Praise strengths and affirm the area where the candidate did well
  • Be precise and give specific examples about any gaps in performance
  • Identify any parts of the assessment that need to be repeated
  • Suggest strategies for overcoming gaps in competence
  • Arrange another opportunity for the candidate to be assessed if required
  • Assist the candidate in forming an action plan for further development.

• **Recording the assessment results** – Assessment requires systematic recording and documentation processes. Records could be kept for the following items:
  
  • The assessment plan including details of competency standards being assessed, the assessment process, methods, tools, resources and materials
  • Examples of evidence submitted for assessment
  • Records of pre-assessment interviews, including self-assessment checklists and agreements on assessment procedure
  • The assessment results, including information on training gaps identified
  • The assessors review of the assessment process
  • The qualifications, awards, licences issued by the training organisation as a result of successful completion of the assessment
  • Records of assessment review or validation meetings including details of changes and improvements made to assessment tools and processes
  • Details of assessment costs.
Ensuring quality and consistency in assessment

Assessments should be reviewed on a regular basis to ensure that the assessment decisions, procedures, methods and tools comply with basic assessment principles of validity, reliability, flexibility and fairness. Training Organisations should support the continuous improvement and refinement of assessment processes and tools to maintain the quality of the assessment system.

Key questions to consider:

- Was the assessment event time and cost effective?
- Did it meet the needs and expectations of the candidate and the employer?
- Were Occupational Health and Safety regulations and procedures followed?
- Was consistency of competence demonstrated over time?
- Was the assessment procedure fair for all candidates?
- Was the assessment made relevant to the actual work context?

Various stakeholders can be included in the assessment review and validation process including:

- Other assessors in the organisation
- Assessors from other training institutions who assess in the same industry area
- Assessment Candidates
- Consultants and industry experts
- National, State or Regional training authority representatives
- Managers, employers and supervisors.

Box 11 The Australian Experience: Assessment and Industry Consultation

A vital ingredient for establishing effective on the job assessment is to ensure there has been a consultation process between the training provider and representatives from industry groups as well as between assessors and employers.

“The key to success when dealing with the mining industry is not to tell industry what to do, but instead inform them of what the training organisation can do for them. We’ve organised meetings with mining representatives to help them set competency benchmarks using Training Package standards. All assessments are done on the job so we need to be clear about what we are assessing and what performance level is competent in accordance with workplace standards. Because of our great relationship with industry we are able to work through these issues together face to face on the various mining sites.” Illawara Institute of TAFE, NSW

“In delivering qualifications from the Food Processing Training Package we negotiated the assessment approach at the beginning of the program with the client and then developed workplace assessment strategies in conjunction with the enterprise employer and supervisors. The assessment approach has been designed to fit with the needs of the enterprise and to incorporate specific workplace procedures and protocols.” West Coast College of TAFE in Western Australia
What are the costs associated with workplace assessment?

VET institutions should consider the following items when costing and pricing workplace assessment:

1. Staff development - to train assessors
2. Development of policies and procedures relating to assessment
3. Purchase or development of industry competency standards
4. Purchase and or development of assessment tools, materials and resources
5. Consultation with industry groups, employers, supervisors and technical experts
6. Planning and conducting of assessments
7. Development of assessment record keeping systems/student information systems about assessment
8. Assessment coordinators to provide ongoing assistance, feedback and support to assessors in the field
9. Assessment review and validation processes including dealing with appeals made by candidates against assessment decisions
10. Issuing qualifications and statements of attainment.

Box 12 The Australian Experience – Assessment Validation

In Australia Registered training Organisations are required to conduct assessment validation meetings on a regular basis. The aim is to produce consistency. A consistent assessment process is one in which assessors assess candidates against the same units of competence over a period of time in different work-based contexts and make comparable assessment decisions.

A variety of formats for assessment validation are used including:

- **Assessor networks** – where individuals involved in VET assessment come together to discuss and evaluate their assessment practices.
- **Bank of assessment exemplars and benchmarks** – Developed in consultation with industry groups and amongst RTO’s a bank of candidates assessment evidence examples that are considered to be exemplary are provided for assessors to benchmark their own assessment decisions
- **Moderation meetings** – Assessors meet together within a training organisation or across a number of training organisations and examine assessment processes, decisions and tools in a particular industry sector
- **Field testing** – Involves trialling or piloting evidence gathering tools to determine whether they are appropriate for the assessment context, gather quality evidence and meet the needs of enterprises. Refinements are made after testing
Glossary of terms and abbreviations

ANTA

The Australian National Training Authority set up in 1992 to provide a co-operative federal system of VET with strategic input by industry.

Assessment context

Refers to the circumstances and situation in which an assessment is conducted. Assessments may be conducted in a variety of workplace or training contexts. They may be conducted in both on-the-job and off-the-job environments. Assessment candidates may be new entrants to the workforce, new apprenticeship trainees, or experienced workers. Assessments can be conducted in a training and assessment or assessment only situation. The assessment context effects the form the assessment process will take.

Assessment guidelines

An endorsed component of all Australian Training Packages which sets out an industry’s preferred approach to the design of assessment processes and the conduct of assessment of competencies within the Training Package. An assessor must refer to these guidelines when planning an assessment event.

Assessment method

The particular techniques used to gather different types of assessment evidence. They may include observation, questioning, third party reports, interviews and portfolios of evidence.

Assessment plans

An assessment plan is used by an assessor to record details of the assessment process and to organise units of competence into tasks and jobs that actually reflect workplace practice. A plan generally documents the units and elements of competence to be assessed; when, where and how the assessment will take place; the assessment methods and tools to be used, and provides an overview of instructions for the candidate.

Assessment purpose

There are a variety of reasons for conducting work-based assessments. These include recognition of a candidate’s current competencies for entry to a training program, job selection or promotion, classification against an award, meeting the requirements of a licensing or regulatory authority, analysing skill gaps, awarding a qualification for competencies achieved in a training program.
Assessment tools

Assessment tools are the practical and specific application of assessment methods. An assessment tool includes both the instrument and instructions for gathering and interpreting evidence. The instrument can be specific questions or activities, performance checklists or a picture of competent performance. The instructions are the information given to candidates about how the assessment activity should be carried out. They can also include information for the assessor in how to conduct and record an assessment activity.

Assessment validation

Validation involves reviewing, comparing and evaluating assessment processes, tools and evidence contributing to judgements made by a range of assessors against the same competency standards. Registered Training Organisations are required to conduct validation processes at least annually.

Candidate

Any person presenting for assessment. The person could be a learner undertaking training in an institutional or workplace setting or a learner/worker/apprentice wanting their skills recognised.

Competency

Vocational skills and knowledge applied in a work context. The demonstrated ability to perform workplace and work-based tasks to industry defined standards.

Competency based assessment

The process of collecting evidence and making judgements on whether competency has been achieved against industry defined competency standards. The main purpose of assessment is to verify that individuals can perform work tasks to the standards expected in the workplace. Skill gaps identified during assessment are seen as a need for further development, not as failure.

Assessment is determined by actual workplace practice rather than conformity to discreet units of competence. Therefore the process of gathering evidence may apply to one or more elements of a unit of competence, a whole unit, a cluster of units, or an entire qualification.

Competency based assessment uses units of competency in combination with actual workplace practice, specific job descriptions, workplace policies and standard operating procedures.

Generally a candidate is assessed in their ability to carry out activities in a safe manner, according to standard procedures and in line with the specified performance criteria outlined in units of competence.
Competency standards

They define the skills and knowledge required for competent performance in an industry. Competency standards are defined by an industry, are nationally recognised and form the basis for training within that industry.

Dimensions of competence

The concept of competency that embraces four key dimensions: task skills, task management skills, contingency skills and job/role environment skills.

Elements of competence

The basic building blocks of a unit of competence, elements describe the key steps necessary to carry out a task to the required standard.

Evidence guide

Part of a unit of competence which specifies the critical aspects of evidence and the underpinning knowledge and skills which must be demonstrated in the performance of work tasks to the required standard. The evidence guide relates directly to the performance criteria and range of variables defined in the unit of competence.

Holistic assessment

An approach to assessment that involves clustering a number of units of competence together that form a whole job or work function. Assessment integrates the application of technical skills, knowledge, problem solving and workplace attitudes across a range of tasks.

Key Competencies

These are general competencies that are essential for effective participation in workplace tasks. They are usually described in the evidence guide of units of competence.

Occupational Health and Safety (OH&S)

Federal and State legislation and organisational procedures and standards which govern the way in which tasks must be carried out in the workplace in order to ensure safe and healthy work practices.

Range of variables

The part of a unit of competence that establishes the range of contexts and conditions in which the performance of a task may be carried out. The range statements help the assessor identify the specific industry or workplace application of the unit of competence.
Reasonable adjustment

Adjustments made to assessment processes, methods and tools that meet the special needs of assessment candidates without compromising the validity and reliability of assessment decisions made against specific units of competence.

Re-assessment and appeals

A process overseen by the RTO whereby a candidate has the right to dispute the outcome of an assessment that they consider to be unfair or invalid.

Recognition of prior learning (RPL)

Also known as recognition of current competencies (RCC), this refers to the recognition of current skills held by an assessment candidate regardless of how, when or where learning occurred. In order to grant recognition of prior learning against specific units of competence, an assessor must be confident that the candidate is currently competent against the specified standards. Evidence of competence may take a variety of forms and could include certificates, references, testimonials and work samples.

Registered Training Organisation (RTO)

This is a training organisation which has met the AQTF standards and been registered by their State or Territory registration body to deliver and assess VET training programs including specific Training Packages attached to their scope of registration. RTO’s can be registered to provide both training and assessment or assessment only services.

Rules of evidence

Quality evidence must meet the four rules of evidence. This means that the evidence must be current, valid, authentic, and sufficient to enable an assessor to make an assessment judgement.

Statement of Attainment

A formal recognition of recognised learning applied to individual or groups of units of competence that do not make up a recognised qualification such as a Certificate IV.

Training Packages

These embrace a set of nationally endorsed standards and qualifications for recognising and assessing people’s skills in an industry area. A Training Package describes the skills and knowledge needed to perform effectively in the workplace. It does not describe how an individual should be trained. Teachers and trainers develop learning strategies – the how – depending on learners needs, abilities and circumstances.
Units of competence

These describe the skills, knowledge and workplace behaviours and attitudes required to perform specific tasks effectively in the workplace. They also identify the evidence required to demonstrate competent performance at the task.

Vocational Education and Training (VET)

The Vocational Education and Training sector caters for people who need vocational skills for work and life. VET is education and training for work.

Vocational skills include technical knowledge and skills that can be applied to specific work tasks, roles and processes, as well as broad generic skills such as the ability to solve problems and work effectively with others.
Bibliography and Websites

The Australian National Training Authority (ANTA)

Established in 1992 to provide a national focus for vocational education and training (VET). Provides a variety of resources and links on assessment
http://www.anta.com.au

National Training Information Service (NTIS)

A national database, maintained by the Australian National Training Authority, that contains detailed information on accredited courses, Training Package qualifications, competency standards, and training organisations throughout Australia.
http://www.ntis.gov.au

Australian Training Products (ATP)

A professional publishing company and national clearing-house for all national training material including curriculum and non-endorsed components of Training Packages, as well as other associated training resources and learners' materials. Materials include print and on-line resources; teacher and learner resources; delivery and assessment strategies.
http://www.atpl.net.au/

ANTA Training Package Assessment Materials project

Eleven assessment guides developed to provide assessors with a range of tools and resources to improve assessment practices. They are on specific topics related to aspects of assessment. They include case studies and useful templates that assessors can customise.

Guide 1: Training package assessment materials kit
Guide 2: Assessing competencies in higher qualifications
Guide 3: Recognition resource
Guide 4: Kit to support assessor training
Guide 5: Candidate's kit: Guide to assessment in new apprenticeships
Guide 6: Assessment approaches for small workplaces
Guide 7: Assessment using partnership arrangements
Guide 8: Strategies for ensuring consistency in assessment
Guide 9: Networking for assessors
Guide 10: Quality assurance guide for assessment
Guide 11: Learning and assessment strategies kit

Vocational Education and Assessment Centre (VEAC)

A user friendly useful resource site with a wide variety of information and resources on assessment issues. PDF copies of the Training Package Assessment Materials Project Guides can be accessed from this site. Also see ‘On Track – a guide to Assessment Validation’
Training Packages @ Work

Publishes resources for teachers, trainers and assessors in the vocational education and training sector. The site contains lots of up-to-date information on assessment.
http://www.tpatwork.com

National Centre for Vocational Educational Research (NCVER)

This is Australia’s principal research and evaluation organisation for the vocational education and training sector in Australia. The site offers a general introduction to assessment and provides links to research projects, reports, resources and articles on assessment

The Resource Generator

This website provides trainers and assessors with access to information about units of competence, qualifications and learning and assessment resources across a range of industries. It allows users to view documents, customise resources, download and print documents and upload their own resources and incorporate them into documents. http://www.resourcegenerator.gov.au/

“The Assessor – A complete Training resource for work-based assessment, comprehensive resource for training assessors in competency based assessment”.

Consists of Video/DVD which explains the key concepts of competency-based assessment through a dramatic story. Also includes CD of learner resources and activities.
http://www.blueprint-training-solutions.com.au

Learning and Assessment strategies Part 2

This resource guide provides VET providers with a range of practical tools and resources for engaging with enterprises/industry when developing and validating learning and assessment strategies. Includes case studies
http://www.anta.com.augov.au

TAFE Frontiers

A VET website which provides a range of case studies of workplace and online competency-based assessment

Exploring assessment in Vocational Education and Training Programs

A study published by NCVER provides detailed case studies of competency-based assessment across a range of training organisations
D     Costing and Pricing of VET Services and Products

5.     Quality

Although quality is a difficult term to define, it usually implies a degree of excellence or good practice.

Quality in organisational performance is usually measured against a set of clearly defined and auditable standards of operation. These standards provide the necessary criteria for effective management, delivery and evaluation of services. An organisation can judge its performance against its ability to meet these standards.

Understanding quality is embedded in the respective sociocultural context of a country or a region.

Most of these standards are internationally acceptable. The quality standards have a critical bearing on VET costs, such as highly-qualified teachers, equal opportunities for underprivileged people, learner centred training methods etc.

What is quality in Vocational Education and Training?

Quality in Vocational Education and Training (VET) is achieved through the establishment and implementation of standards that govern the quality of service provision. These standards relate to all aspects of an organisation’s operation including:

- Business planning and management
- Provision of training and assessment
- Client services and student support
- Marketing and promotion
- Record keeping and administration.

An effective quality management system includes ongoing monitoring or “continuous improvement” to ensure that the organisation’s complies with established standards and identifies opportunities for improvement in organisational performance.

Quality standards for VET providers often form part of a comprehensive and integrated national quality system. It may include delivering nationally accredited courses and issuing nationally recognised qualifications. VET training providers are registered within the national system by demonstrating the required standard of performance against nationally agreed quality standards.
What is in this section of the manual?

- **Introducing VET quality systems at a national and organisational level**
  
  The following pages outline the processes involved in establishing and implementing quality management in a VET context. They will help you assess the value and benefits of setting up a quality management system as part of your VET services.

- **Quality Assurance in Vocational Education.**

- **Costing a VET quality system at an organisational level**

- **A Toolkit comprising:**
  
  - Item 1. A quality management matrix
  - Item 2. A self-audit questionnaire
  - Item 3. Examples of quality management policies and procedures
  - Item 4. Case studies – Brazil, Peru, Costa Rica, Columbia, Nepal, Australia

- **Glossary of terms and abbreviations**

- **References, Bibliography and websites**

**Introducing a VET quality system at a national level**

The establishment of a national quality system can have wide-reaching benefits for the VET sector. A major benefit is that it allows for **mutual recognition** of the qualifications issued by training providers who are registered within the system. In other words, a qualification issued by one organisation represents **the achievement of the same level of skills and knowledge** as the same qualification issued by another training provider. This increases the credibility of a qualification and promotes confidence in its worth by employers, students and other training providers.

**Additional benefits can include:**

- Increased status and image of the VET sector
- Increased ability to meet industry needs and priorities for training
- Increased ability to address local and national skills shortages
- Ensuring employer confidence that the skills of their workers meet industry needs
- Uniform quality of training and assessment
- Increased access to VET services by students and providers
- Greater flexibility of training options and pathways to further training
- Increased job opportunities for students
- National recognition of qualifications
- Providing students with skills which are highly recorded and valued by employers.

For optimum effectiveness, government commitment and funding is required towards the establishment of a national quality system for the VET sector.
A national quality system should embrace the following areas:

- a) Standards for training providers registered within the system
- b) Standards for bodies required to administer, regulate and monitor the system
- c) A national qualification framework, through industry defined competencies
- d) Accreditation of training programs and courses
- e) The standard of training support materials and other resources
- f) Stimulation and encouragement of training markets that offer flexible training opportunities for prospective students
- g) Consumer choice.

We will now look at each of these areas in more detail. The federal government of Australia began the establishment of a national training system in the 1990’s. In 2001 an agreed set of 12 Standards were issued to govern the quality of training provision in Australia.

1. Systems for quality training and assessment
2. Compliance with Commonwealth, State/Territory legislation and regulatory requirements
3. Effective financial management procedures
4. Effective administrative and records management procedures
5. Recognition of qualifications issued by other RTO’s
6. Access and equity and client service
7. The competence of RTO staff
8. RTO assessments
9. Learning and assessment strategies
10. Issuing AQF qualifications and Statements of Attainment
11. Use of National and State/Territory logos
12. Ethical marketing and advertising.

Box 13

The Australian Quality Training Framework (AQTF)

The key objective of the Australian Quality Training Framework (AQTF) is to provide the basis for a nationally consistent, high quality vocational education and training system. The AQTF ensures that all Registered Training Organisations (RTO’s) and the qualifications they issue are recognised throughout Australia.

The AQTF comprises two sets of nationally agreed standards to ensure the quality of vocational education and training services throughout Australia. They include Standards for training providers and standards for regulating bodies.
a) Standards for training providers

National standards provide a benchmark for good practice within the VET sector. The development of appropriate and effective standards for training providers is best achieved through consultation with a range of stakeholders including representatives from relevant industries, government departments, training providers and local communities. The standards should cover all aspects of operation. Training providers who wish to be registered within the national system need to demonstrate compliance against the Standards.

Box 14

The Australian Example:
The AQTF Standards for Registered Training Organisations (RTO’s)

AQTF requires RTOs to:

- Have documented systems (policies and procedures) for quality training and assessment
- Conduct an internal audit at least annually to test compliance against the 12 standards
- Have documented agreements with other organisations when they provide training or assessment in a partnership arrangement
- Have written procedures for recruitment, induction and professional development of staff
- Use trainers and assessors who have formal qualifications in training and assessment as well as experience in their subject area
- Follow explicit requirements for quality assurance in assessment
- Have a process for recognition of prior learning and offer to recognise the prior learning of all learners on enrolment
- Follow specific requirements for developing and delivering course curriculum, and for validating assessment processes and tools.

b) Standards for regulating bodies

National, regional or state regulatory bodies are required to administer a national VET quality system. Regulatory tasks include:

- Registering training providers to deliver training, assess competency and issue nationally recognised qualifications
- Auditing registered training providers to ensure they meet (and continue to meet) the requirements of the Standards
- Ensuring mutual recognition of providers and qualifications issued is applied;
- Accrediting courses
- Maintaining a register of approved training providers and accredited courses
- Dealing with complaints and grievances.

Standards for regulating bodies ensure national consistency in auditor standards, audit practices and process, and course accreditation requirements.
c) A national qualification framework

A national qualification framework provides a comprehensive, nationally consistent yet flexible structure for all qualifications in post-compulsory education and training. It defines the qualifications, describes the distinguishing features of each qualification level and sets out the general characteristics of education and training at each qualification level.

Box 15

The Australian Example:
The AQTF Standards for State and Territory Registering/Course Accreditng Bodies

AQTF provide for nationally consistent auditor standards, audit practices and process and cover:
- Confidentiality
- The qualifications, selection and monitoring of auditors and technical experts
- Appeals, complaints, disputes and sanctions
- Applications for renewal of registration by training providers
- Posting up-to-date information on the National Training Information Service website (NTIS)
- Recognition of Australian Qualifications Framework (AQF) qualifications and statements of attainment
- Course accreditation processes (including the process for establishing the need for courses, as detailed in the publication Guidelines for Course Developers).

Box 16

The Australian Example:
The Australian Qualifications Framework (AQF)

The Australian Qualifications Framework (AQF) is a single, coherent framework for qualifications from Senior Secondary Certificates through to Doctoral Degrees.

The Framework links together all these qualifications and is a highly visible, quality-assured national system of educational recognition, which promotes lifelong learning and a seamless and diverse education and training system.

It covers qualifications issued by secondary schools, vocational education and training (VET) providers and higher education institutions. All qualifications are nationally-recognised.

Within the framework, there are six VET qualifications available: Certificates I, II, III and IV; Diploma and Advanced Diploma. Learners who complete some, but not all, standards for a qualification are awarded a statement of attainment. When they are assessed as competent in the remaining standards, they attain the qualification.
In Australia, National Training Packages are developed for each industry through an extensive process of industry and training provider consultation. Each Training Package specifies the outcomes (competency standards) required to carry out a range of tasks within an area of industry. The Training Package also provides guidelines as to how assessment should be carried out before a qualification may be issued.

Training packages are developed at State level and endorsed at Federal government level through the Australian National Training Authority (ANTA). Courses not contained within industry Training Packages are accredited by State regulating bodies.

e) Training support materials and other resources

Training support materials include all the learning resources required to achieve specific learning outcomes and qualifications. This includes curriculum, student workbooks and other learning materials assessment tasks etc.

In Australia, learning and assessment materials and resources are developed or purchased by individual training providers. Although support materials are not nationally endorsed a quality control system is in place whereby they can receive a ‘tick of approval’ from the Australian National Training Authority (ANTA). Thus the national system in Australia controls what must be taught without specifying how it must be taught.

f) Stimulation of training markets

A National system can provide research and funding to develop new training markets.

For instance in Australia 10 Industry skills councils provide accurate industry intelligence to the VET sector about current and future skill needs and training requirements. They also support the development, implementation and continuous improvement of quality nationally recognised training products and services, including Training Packages.

Meanwhile Federal and State bodies provide funding in the development of labour market programs, apprenticeship training and professional development.
Introducing a VET quality system at an organisational level

Training providers can introduce a quality system at a local level whether or not it is part of a national system. Even if there is no national system in place, quality control should significantly enhance both the reputation and the organisational effectiveness of the training providers involved. For instance a regional cluster of providers could initiate a system that could realize most of the benefits of a national system.

Case studies of countries that have introduced a VET quality system are provided in the toolkit.

The following flowchart sets out the steps involved in establishing a quality control system.

**Figure 5  Steps for introducing Quality in VET**

1. Identify the standards governing VET in your region or country
2. Identify the implications of these standards for your organisation
3. Develop and adopt policies and procedures to ensure your organisation meets the standards
4. Implement policies and procedures into your organisation’s operational practices
5. Establish “continuous improvement” systems to measure performance and monitor on-going compliance against standards
6. If there are no national standards, consider using existing standards from other countries, i.e. AQTF Standards for RTO’s, ISO 9000 Standards.
7. Carry out a quality audit to identify shortfalls in your organisation’s practice against the standards. *See audit checklist in Toolkit Section F, Item 2.*
8. Policies should clearly state what the organisation will do and procedures should provide clear instructions on how it will do it. *See samples in Toolkit Section F, Item 3.*
9. Disseminate relevant information to teaching and administrative staff members and ensure they understand and follow policies and procedures.
10. This is a vital step in any quality system. It provides feedback on how well you are meeting the standards and where improvements can still be made.
Costing a VET quality system at an organisational level

From one perspective the cost of quality is the amount of money a business loses because its product or service was not done right in the first place. When costing a quality management system it is important to ensure that the cost of improvements will be supported by the benefit of the system. The following equation can be used to look at the cost/value associated with implementing a quality system.

Tangible benefits - cost of quality implementation = Financial benefits

The development and implementation of a quality system can be expensive because of the labour and time required to develop effective policies, procedures and the necessary forms and information required for administering the system. However, pro-forma policies and procedures can be purchased and customised to meet the specific organisational requirements of the training provider.

The Quality Systems Matrix in the toolkit accompanying this section list the policies, procedures, organisational documents and forms required to meet a set of established standards. [In this case the Australian Quality Training Framework Standards (AQTF)]

Policies and procedures should be developed for the following areas:

- Business planning and management including financial plans, budgets, insurance and tax issues
- Provision of training and assessment including staff qualifications, links with industry, training needs analysis, delivery methods and resources, assessment procedures and assessment validation
- Client services and student support
- Marketing and promotion
- Record keeping and administration.

The development of policies, procedures and forms for one area of service management may take from 10 –20 work hours to research, develop and refine.

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1. AQTF Standards: Blueprint Training Solutions ‘Do it yourself Kit’ to assist training providers comply with the AQTF Standards. The Kit represents approx 300 hours work of policy and procedure development. See [www.blueprint-training-solutions.com.au](http://www.blueprint-training-solutions.com.au)

To implement a quality system involves:

1. Making staff appointments or delegating responsibility for key tasks as described in the relevant policies and procedures. For instance an Occupational Health and Safety Policy may require the organisation to have a designated person with direct access to the Chief Executive who has defined responsibility and authority in relation to occupational health and safety issues within the organisation.

2. Ensuring that staff with delegated responsibilities develop systems in line with their documented duties.

3. Ensuring that staff, trainers and assessors are provided with information from the policies and procedures that relate directly to their areas of responsibility. This can be achieved through the production of a *Trainer and Assessor Handbook* and *Staff induction procedures*.

4. Requesting staff, trainers and assessors to familiarise themselves with policy guidelines and to follow the correct procedures in completing tasks.

5. Requesting administrative staff to develop systems in line with relevant administrative procedures.

6. Encouraging staff, trainers and assessors to discuss any issues that arise from implementing the policies and procedures with the Chief Executive Officer.

7. Following up to ensure that policy guidelines and correct procedures are being followed.

8. Following up to ensure that administrative procedures are working effectively.

9. Reviewing all policies and procedures on a regular basis. Procedures in particular need to be kept up-to-date with changes in organisational practices. A *version control procedure* would document the processes involved in maintaining up-to-date documents.

10. If the organisation is to comply with a national or international set of standards then it is advisable to carry out a trial audit before official compliance auditing is required.

**Quality Assurance in Vocational Education**

The last decades have seen an increase in the importance of world-wide discussions and measures concerning quality assurance in many fields (production, service and administration). The 1990’s saw an emphasis on process-oriented quality assurance, ISO 9001 and TQM.

The recent emphasis has shifted to client/consumer orientation.

This is described as “education monitoring”.
Education monitoring is understood as a planning-orientated evaluation instrument for the goal and result-orientated design and control of vocational training and further training, in order to optimise their usefulness.

The concept and its activities are directed towards the phases of the educational process and include the following elements:

- Education needs analysis
- Goal ascertainment
- Conception and planning of educational measures
- Implementation of educational measures
- Checking on success (and failure) and securing transferability.

In Europe, the following approaches and methods for quality assurance in vocational education can be identified.

Quality assurance through:

- market mechanisms
- measures to improve market transparency
- certification of recognised diploma’s
- contractual regulation and specification of obligations
- self monitoring by executors of education
- state conditions of support
- state regulation of the market
- consumer choice.
### Table 6: Search Criteria for Quality Assurance

<table>
<thead>
<tr>
<th><strong>Descriptive criteria</strong></th>
<th><strong>Analytic criteria</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Quality definition</td>
<td>6. Quality of vocational education</td>
</tr>
<tr>
<td>Is quality clearly defined? Are quality measurements provided, which also consider the question of content?</td>
<td>Does the approach include elements useful for appraising the quality of vocational education?</td>
</tr>
<tr>
<td>2. Quality assurance strategy</td>
<td>7. Target group definition</td>
</tr>
<tr>
<td>Which quality assurance strategies are presented and described in a transferable manner?</td>
<td>Does the approach allow for the possibility of “appropriateness to the target group” (ie. poorer classes, women) as well as target group satisfaction in vocational education projects to be “grasped”?</td>
</tr>
<tr>
<td>3. Responsibilities</td>
<td>8. Recording effects</td>
</tr>
<tr>
<td>Is anything determined concerning the necessary responsibilities and their regulation?</td>
<td>Does the approach allow for the possibility of recording the effects, or impact of vocational education?</td>
</tr>
<tr>
<td>4. Participants</td>
<td>9. Cultural appropriateness</td>
</tr>
<tr>
<td>How is the involvement of participants (or those concerned) regulated?</td>
<td>Is the approach “culture free” or does it affect established sensitivities or forms of perception and co-operation?</td>
</tr>
<tr>
<td>5. Tools</td>
<td>10. System adaptation (state/market/co-operative)</td>
</tr>
<tr>
<td>Which available tools (checklists, algorithms, questionnaires etc) are developed and transferable?</td>
<td>Is the approach similarly “suitable” for state-regulated vocational training as well as for its market or co-operatively regulated forms?</td>
</tr>
</tbody>
</table>

What is involved in acquiring ISO Certification?

ISO is a quality system that has international recognition.

While there are many quality systems established nationally for industries, including training, ISO transcends national bodies.

In most countries ISO is more likely to be adopted by the manufacturing sector and a misconception is that ISO:9001 is only linked to product certification.

Certification with ISO represents an affirmation that the instruments, procedure and organisational structures employed are appropriate to quality policy goals. The certificate does not certify the high quality of the product or the service offered, but simply the “capacity for quality” of the certified enterprise relative to that which is promised.

In Nepal there are over 100 organisations with ISO certification but no service industries.

F-Skill/Helvetas, Nepal, an employment and training program is in the process of pursuing ISO Certification.

The following ISO process outline was prepared by F-Skill/Helvetas, Nepal.

**Box 17**

**F-Skill ISO Certification Process**

**Pre-certification Process**

The pre-certification processes are given as follows:

1. Documentation of processes as required by ISO 9001:2000 standard and the activities being carried out by F-Skill
2. Formulation of scope and finalisation of quality manual
3. Determination of effectiveness criteria for identified processes
4. Internal auditor training
5. Discussion on the importance of internal audit and management review meeting
6. First internal audit and management review meeting
7. Certification audit.

Continued…

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1. Lipsmeier, Georg, Idler: opcit n1. P. 44 (Adapted)
Certification Process
Certification process of ISO 9001:2000 consists of the following steps:

**Questionnaire**
First hand information from an organisation is taken with the help of a Questionnaire. This includes the type of activities carried out by the organisation and number of employees involved. This is required to ascertain the time required for auditing the organisation as well as to figure out the cost for Certification.

**Purpose of the questionnaire:**
- Overview of the organisation
- Scope of certification
- Other sites for registration
- Number of people who are involved
- Process, Activities involved.

**Quotation:**
On the basis of information collected, a quotation is prepared and submitted. It also indicates the frequency of Surveillance visits as terms and conditions for grants and maintenance of Certification.

**Quotation highlights on:**
- Cost for Application, Assessment & Certification, Registration and subsequent surveillance audit
- Audit plan for three years certification.

**Application**
After acceptance of the terms and conditions of the Quotation, the client organisation submits the completed application for assessment along with the application fee. A unique identification number is allotted to every organisation by the certifying agency on receipt of Application.

**Purpose:**
- Initial registration of company
- Confirmation of company name for Registration Schedule.
Document Review

Document review is done to evaluate the adequacy of organisation’s documented system vis-à-vis requirements of the standard of Certification. A formal report is prepared and submitted to the client’s organisations for any corrective actions, as appropriate.

It highlights on:

- Review of Quality Manual and other documentation against respective ISO standards
- A written report that details if any, revisions that may be required before assessment
- A summary sheet identifying which issues are to be addressed before audit, before registration or before first surveillance audit.

On-site Assessment

Once corrective actions on observations of the document review report are confirmed by the client organisation, an on-site visit is planned to verify the implementation of systems as per the standard of certification and documented system of the client organisation. A report is prepared by outlining the extent of compliance with both your documentation and standard, and details any problem areas that require correction before certification can proceed.

The Audit findings are categorised into following grades:

- Major Non Compliances
- Minor Non Compliances

Purpose of On-site Assessment:

- At least one Internal Quality Audit and Management review meeting should have been conducted prior to Initial assessment
- Assess the degree of compliance of your operation with your own documentation
- Written report which outlines the extent of compliance with both the documentation and standards
- Corrective actions to be taken if deficiencies are identified.

Issue of Certificate

Once the corrections have been completed, the next stage is presentation of certificate. The Registration Certificate and Registration Schedule will be provided by the Certification agency.

Surveillances

In order to verify the continuing compliance of activities the client organisation to the requirements, Surveillance audits are conducted periodically. The Periodicity differs from the nature of organisation.

Renewal of Certificate

After three years, a re-certification audit takes place. Since it is assumed that the management system is already working, the re-certification assessment is usually of shorter duration and therefore entails a lower cost.

Report – Implementation of ISO at F-Skill
Kathmandu, September 2004
What are the Costs in Establishing a Quality System?

The main costs in establishing a Quality system is in human resources.

If an institution decides to acquire the International Organisation for Standardisation (ISO) eg 9001:2000, there are costs associated with pre-certification (this work can be done by staff or external consultants), Certification, Surveillance Audits and re Certification (usually at three years) is conducted by ISO certified companies.

Although implementing Quality systems is expensive, there are definite benefits (page 2).

The institution will have to decide the level of expenditure allocated for quality. If possible they should aim for good practise, acquiring national and/or international certification.

It should be noted that institutions can implement quality or good practise without gaining registration from a national or international organisation.

The processes and staff training in Quality Management required to achieve registration (as for ISO) can be used as guidelines to assist in introducing quality systems and good practise.

Costs for registration and implementing ISO will vary between countries.

See Two Costing Case Studies-Australia and Nepal are given in the Toolkit, Section D, Quality
Glossary of terms and abbreviations

Accredited courses
Courses which have gone through a process of recognition in line with agreed standards and leads to a formal qualification.

ANTA
Australian National Training Authority – is the authority responsible for vocational education and training in Australia. Their website: www.anta.com.au provides links to many other training and assessment websites.

AQF
Australian Qualifications Framework - is the policy framework that defines all qualifications recognised nationally in vocational education and training.

AQTF
Australian Quality Training Framework – is the nationally agreed quality arrangements for the Australian vocational education and training system.

Chief Executive Officer
Is the most senior executive of the RTO.

Client
Means student, learner, enterprise or organisation that uses or purchases the services provided by a RTO.

Competency Standards
These define the competencies required for effective performance in the workplace. Each unit of competency describes a specific work activity, the conditions under which it is conducted, and the evidence that may be gathered to determine whether the activity is being performed in a competent manner.

Forms
A form is an instrument used by the organisation to document information as proscribed by a procedure. e.g. Internal Compliance Audit form.
ISO

The words ISO represent the International Organisation for Standardisation. ISO is the worldwide federation of national standards bodies for more than 150 countries. There is one member per country, with the central secretariat in Geneva, Switzerland, ISO co-ordinates the network among its member countries.

Continuous Improvement

ISO requires an organisation to focus on continually improving the effectiveness of its quality management system, to fulfil its policies and objectives. One way of doing this is for the organisation to improve its processes and efficiency. Responding to the growing needs and expectations of customers and ensuring a dynamic evolution of the quality management system.

ISO 9000 Standards

The International Standard Organisation (ISO). ISO 9000 standards provide a process of certification, which assures the possessing institution the recognition of them developing their processes from a managerial perspective of total quality. The standards of quality describe the characteristics of processes; the competence standards, and the characteristics of the desired results (performance criteria).

Industry skills councils

Industry Advisory Bodies who work directly with industry enterprises and training providers to assist and advise with the development of training programs and the development of Training Packages.

Internal audit

This refers to audits conducted by, or on behalf of, the RTO for internal monitoring purposes.

Mutual Recognition

This underpins the Australian National Training Framework. It means that AQF qualifications Statements of Attainment issued by one RTO will be accepted and recognised by all other RTOs. It also means that RTOs can operate in another State or Territory within the scope of their original registration without having to go through a further registration process.

NTIS

National Training Information Service – provides details of all current Training Packages and accredited courses on its website: www.ntis.gov.au
Non-compliance

Refers to failure to comply with one or more of the *Standards for Registered Training Organisations*.

**Policy**

A policy is a statement that outlines how your organisation complies with the Quality standards. e.g. *Risk Management Policy*.

**Procedure**

A procedure describes the step-by-step process for completing a task proscribed by a particular policy. e.g. *Risk Management Procedures*.

**Quality assurance in assessment**

Refers to assessments carried out by an organisation meeting

a) the definition of quality evidence:
   - evidence must be valid, sufficient, current and authentic

b) the principles of assessment: valid, reliable fair and flexible

**Risk Management**

Means a systematic approach to identifying, analysing, evaluating, treating and monitoring risk factors in relation to compliance with Quality Standards.

**RPL**

Recognition of Prior Learning – means recognition of competencies currently held, regardless of how, when or where the learning occurred.

**RTO**

Registered Training Organisation - is a training organisation registered by a registering body in accordance with the AQTF within a defined scope of registration.

**Statement of Attainment**

The formal certification issued by an RTO in recognition that a person has achieved some of the competencies identified for a particular qualification.
Training Packages

Comprehensive, integrated training products developed by individual industries, i.e. Business Services, Health, Sport and Recreation. They include endorsed components (national competency standards, assessment guidelines and qualifications) and non-endorsed components (learning strategies, assessment resources and professional development materials).

Validating assessment processes and tools

Validation refers to processes carried out by training organisations to assess the consistency and reliability of their assessment decisions by examining and comparing a range of assessment instruments and techniques used by assessors within an organisation or across a range of organisations that provide assessment services using the same industry standards.

VET

Vocational Education and Training
References and websites on Quality


Lipsmeier Antonius; Georg Walter, Idler Horst: “Dealing with Financing of Vocational Education”, GTZ 2003


[www.iso.org] International Organisation for Standardisation

[www.ilo.org] International Labour Organisation

[www.qualitymanagementsurvival.com]

[www.iso-guide.com]

D Costing and Pricing of VET Services and Products

6. Return On Training Investment (ROTI)

“Training refers to all forms of skills formation activity relevant to the operation of the enterprise. It may include formal and informal and on-site and off-site training and education”.

Research into training returns indicates that training is important for individuals, enterprises and governments and has widespread benefits, both economic and social. Investing in training can contribute to quality and innovation, allowing enterprises and economies to remain competitive. It is important to assess the Return on Training Investment (ROTI) to assess the effectiveness of training investment.

Who Benefits from Training?

The ideal result from training is where the individual and society benefit as a whole. The private benefit for the individual is an increase in income, which should lead to a better quality of life, with a flow on effect to other members of the community and the nation as a whole.

The Social, intangible, non material benefits which are very difficult to measure include:

- Better health
- Less criminality
- Skilled and relatively low cost labour
- The possibility to shift towards skill intensive and value added manufacturing
- Greater access to export markets.

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What is in this section of this manual?

- Introduction to ROTI
- Limitations/Difficulties in Measuring ROTI
- Calculating ROTI
- A toolkit comprising:
  1. How to Measure Cost Effectiveness
  2. The Cost of Measuring Performance
  3. Collecting Data for ROTI
  4. Cost Benefit Ratios:
     - Private Rate of Return
     - Social Rate of Return
     - Formulas and Case Studies
  5. A Taxonomy of Possible Training Outcome Indicators for ROTI Studies.

- Glossary of Terms and Abbreviations
- References and Websites

What is ROI/ROTI?

Return on Investment (ROI) refers to the gains derived by an individual, enterprise or government body making the investment. Also included are the benefits to communities or societies as a result of these investments. The returns or benefits which can be easily measured are those that have a direct relationship to the investment being made. These include:

- “Increased productivity
- Increased profits
- Reduced downtime from machine breakdowns
- Reduced injury rates.

The benefits that have an indirect relationship with the investment are more difficult to measure. These include:

- Increased staff morale
- Increased self-esteem.

These are only considered benefits after all the costs – direct and indirect are included”.

In the current economic climate there is an emphasis on innovation and competitive advantage among enterprises. Enterprises need to value the intangible and intellectual assets which include high-quality services, skilled and motivated employees and satisfied customers.

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These are some of the returns that enterprises can attain through training. Practical, relevant and cost-effective approaches to analysing the returns/benefits of training investment are required.

ROTI is linked to cost effectiveness of service delivery and gives VET managers and administrators an indication of their returns on a particular activity. ROTI gives governments the ability to compare the VET investment with other government services.

ROTI provides managers with qualitative and quantitative evidence of the contribution of training to operational and strategic priorities of the enterprise. It measures more than simply the impact on profit and productivity. This information is becoming increasingly important as VET managers aim to make the most efficient use of available resources.

Training organisations have been carrying out ROTI for over 20 years, mostly in developed countries by academic researchers. There has been reluctance on the part of training organisations and enterprises to undertake this activity.

Some ROI Facts

- The ROI process has been refined over a 20 year period
- Thousands of studies have been developed using the ROI process
- 100 Case Studies have been published on the ROI process
- Organisations in 27 countries have implemented the ROI process
- A 400 member professional network has been formed to share information.

Government Impact

Governments with a limited amount of funding for VET want to maximize their investment. Information on ROTI will assist them in prioritising their funding in relation to national strategy. For example, entry level training (which is generally low cost) may be a priority in a situation where the training market is not providing the service, to improve national productivity.

Government policy may also have an impact. Social returns may be more important than making a profit on training for equity; disadvantaged groups may or may not be a priority.

ROTI calculation has been included in the Toolkit Section G for training organisations that are interested and have a need to provide this information to internal management or to external financiers.

Why Measure ROTI?

“ROTI is a human resources term covering qualitative and quantitative approaches in evaluating the benefits, or returns, from investment in the learning and development of employees”. 4

4. Moy, J; McDonald R: op cit n1 Page. 4
ROTI helps VET managers to decide if funds and time invested in training has been worthwhile. It can help justify training expenditure, especially in times of economic difficulty.

- **INDIVIDUALS** want to know if training will provide them with a higher income in the short or long term, or opportunities for promotion
- **ENTERPRISES** want to know if training improves workplace performance and productivity. Also it can assist enterprises to know if the training helps them to comply with government requirements
- **GOVERNMENTS** want to know if their funding of training helps them to meet national qualification and skill targets and improve economic competitiveness.

When measuring ROTI we can assess financial investment in training with financial returns and also cost-savings in training delivery.

**Limitations / Difficulties in Measuring ROTI**

Although it is seen as an important measure, the difficulty associated with measuring ROTI is a disincentive for ROTI evaluation. Some of these difficulties include:

- The number of variables, and the impossibility of controlling all variables business outcomes are affected by many factors and training cannot be easily isolated as a factor
- The measurement of direct and indirect benefits can be difficult. Intangibles which are more relevant for the benefits than the costs eg. better health and safety in the workplace, work satisfaction, increased status. Rates of return of different education levels, gender or regions are not usually compared. This analysis is important to determine who is benefiting from the training
- Difficulties in isolating the benefits of training and quantifying all costs and benefits.

**Limitations**

It is important to understand that results are an indication only and can be inaccurate due to a number of external factors.

It is also sometimes difficult to collect data on increases in productivity and other intangible benefits often resulting from training that is qualitative benefits. Also, many enterprises have limited time and resources to undertake ROTI effectively.

Rates of return of different education levels, gender or regions are not usually compared. This analysis is important to determine who is benefiting from the training.

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5. Misko: op cit n1, Page. 8
Measuring Outcomes of ROTI

“ROTIs are maximised when training decisions complement other Human Resource Development policies. Enterprise training program benefits can include:

1. Productivity and Efficiency
2. Sales and Profitability
3. Quality of Products and services
4. Customer service and Satisfaction
5. Occupational Health and Safety
6. Organisational Learning and Development
7. Organisational Climate, Culture and practices.”

This list is not exhaustive. It provides a range of possible training outcomes and indicators. They will assist in measuring the benefits of training for enterprises.

See Toolkit Section G for comprehensive list of possible training outcome indicators.

When measuring ROTI, returns are not only financial, which makes it difficult to link training activities with outcomes.

“Because human resources are an intangible form of capital, it is equally possible that the returns may be equally intangible in a financial sense although clearly demonstrable in other ways”.

Also it can be difficult to measure the costs and benefits of on-the-job learning when the cost of learning is a part of everyday work and the production cost.

“Based on their research Catts et al. recommend that business indicators such as measures of productivity should be used together with indirect measures of the effect of training on staff performance, provided through approaches such as measures of customer satisfaction with service”.

Research also recommends approaches which identify returns to enterprises by focusing on a small number of variables of interest to enterprise. These include existing enterprise data such as employee turnover rates.

ROTI and Organisational Change

Research findings indicate that training is a key feature in enterprises undergoing organisational change or adopting new work practices.

The success of organisational change can be used as a measure of ROTI, rather than looking only at expenditure and productivity outcomes. It is important to look at how training assists the achievement of enterprises strategic goals.

6. Moy & McDonald: op cit n2, Page. 19
7. Moy & McDonald: op cit n3, Page. 4 (Emphasis added)
8. Moy & McDonald: op cit n4, Page. 7 (Adapted)
Factors that enhance ROTI

An important factor identified in research into ROTI indicates that economic benefits to enterprise are maximised when management practices are integrated with employee training and empowerment programs. Research findings indicate that enterprise returns on training are greatest when:

- Training reinforces human resources policies; including incentives, promotion, recruitment policies and feedback systems
- Training aligns with corporate objectives and operating requirements, including production strategies
- Senior management is committed to training.

Calculating Program Benefits

Maximising ROTI

Training benefits can be maximised by:

- Ensuring appropriate employees participate
- Use a range of training methods and providing learner support in the form of mentoring
- Integrating language, literacy and numeracy training
- Creating close links between on and off the job training and other skill development opportunities
- Providing a mix of on and off the job training
- Addressing specific business and employee needs
- Training programs that deliver a consistent message.

Box 18

Examples of Enterprise Approaches for Assessing Return on Training Investment

- Employee behavioural change; identified using annual employee opinion surveys – used at Johnson & Johnson
- Designing training to address key operational objectives (used at Motorola):
  - Zero Production defects
  - Reduced total cycle time
  - Integration of production and manufacturing
  - Becoming a customer driven company, and
  - Developing a participative management culture.
- Production units per hour per employee (used at Polaroid).

When VET managers are designing training, avoid the following factors that reduce the returns on training investment:

- Lack of employee incentive to apply learning on-the-job
- Lack of job-design and work experience opportunities
- Training which is not up-to-date or relevant
- Lack of training for managers
- Lack of supervisor involvement and management commitment to the training.

“If training innovations aren’t complemented by changes in technology, work organisation and human resource practices, then training may have little impact on individual and organisational performance.”

How do you evaluate ROTI?

In evaluating ROTI Davidson et al. (1997) suggest 4 stages of training evaluation:

- **Budget Evaluation**
  
  Budget evaluation looks at the financial return to the business for every budgeted $ invested in training. This measure looks at maximizing financial returns on investment in the training budget.

- **Skills Evaluation**
  
  Skills evaluation looks at what skills have been developed through training and to what level. This evaluation will examine improvements as a result of training including:
  
  - Time savings in jobs
  - Productivity improvements (Quality)
  - Improved quality outputs
  - Improved personnel performance, including decreased absenteeism.

- **Project Evaluation**
  
  This looks at the benefits of the overall project, both direct and indirect benefits, financial and intangible; and assessing these returns against the project training costs.

- **Strategic Evaluation**
  
  This looks at how the training and its results are in line with the strategic goals of the organisation. This evaluation looks at the improved business performance and how it is in line with the strategic vision of the organisation.”

---

10. Moy & McDonald: op cit n6 Page. 16 (Emphasis added)
11. Moy & McDonald: op cit n6 Page. 8
Figure 6  Four Step Training Evaluation Process

Step 1  Data Collection

This is the first step and the most important for the data to be useful, it must be as accurate as possible, and the outcomes to be achieved clearly defined. Data is needed on the following three categories:

- the measure of performance; for example achieving program targets
- the cost of the training  
- the benefits of the training.

Step 2  Pre and Post Training

Tracer Studies can be used to collect data on the impact of the training for graduates. They are often conducted before and after training, i.e. Just after training, at 3 and 6 months following training. They measure:

- the direction of change in the target performance measure or behaviour
- the size of the change
- the economic significance of the change.

See Samples of Tracer Study Surveys in the Toolkit Section L, Item 3

Advantages of Tracer Studies

- Low cost
- Easy to conduct
- They provide useful information for planners and financiers.

Tracer Studies can be useful if there is a lack of employment data ie. Employment by age, gender and sector available at the national and/or local level, to give an indication of labour market demand.

Disadvantages of Tracer Studies

The influences of other factors in labour market success:

- Personal characteristics and motivation
- Educational background
- Their position in society
- Their race, religion or caste.

Due to these variables and difficulties in collecting data, results of Tracer Studies can be inaccurate.
Step 3  Multivariate Analysis

At this stage these variables and other factors that contribute to performance or changes in behavior are taken into consideration.

“Reverse Tracer studies can be conducted to identify which paths to skills acquisition lead to certain occupations and qualifications. VET managers can then assess the actual contribution of their training programs to the development of skilled labour most likely to be employed by industry. This knowledge can help VET managers respond to industry signals reflecting skills shortages by expanding programs and selecting trainees with the previous experience and/or educational levels required for entry to occupations.”

Step 4  Calculate ROI

Benefits / Costs Ratio

Phillips (1997) calculated ROI using program benefits and costs. The benefit/cost ratio (BCR) is the program benefits divided by cost:

\[
BCR = \frac{\text{Program benefits}}{\text{Program costs}}
\]

He suggests that the most appropriate formula for evaluating training investment is net program benefits divided by cost. The ratio is usually expressed as a percentage when the fractional values are multiplied by 100:

\[
\text{ROI} (\%) = \frac{\text{net program benefits}}{\text{program costs}} \times 100
\]

The net benefits are the program benefits minus program costs.

The ROI value is related to the BCR by a factor of one.

Consequently, a BCR of 22.45 is the same as an ROI value of 145 per cent. Applied to training, the investment part of the formula refers to capital expenditure for equipment, materials and facilities, plus initial development or production costs.

   www.ncver.edu.au 2001 Page. 38
14. Smith: op cit n1 Page. 38
“A ROTI on a training investment of 50 percent indicates that costs were recovered and an additional 50 percent of the costs are reported as earnings. A training investment of 150 percent indicates that the costs were recovered and an additional 1.5 multiplied by the costs is captured as earnings.

Box 19 a

**Return on Training Investment**

**Benefit/Cost Ratio example**

The ROTI achieved by one company for an 18-week literacy program. The program cost $38,233 and benefits (productivity and quality improvements) were valued at $321,600.

The ROTI for this program was:

\[
\text{ROTI (\%) = } \frac{\$321,600 - \$38,233}{\$38,233} \times 100 = 741\%
\]

For each dollar invested, the company received $7.41 in return, after program costs had been fully recovered.

Box 19 b

**Return on Training Investment**

**Benefit/Cost Ratio example**

The ROTI achieved by one company for a 24-week pre-trade training program. The program cost $45,750 and benefits (productivity and quality improvements) were valued at $358,000.

The ROTI for this program was:

\[
\text{ROTI (\%) = } \frac{\$358,000 - \$45,750}{\$45,750} \times 100 = 676\%
\]

For each dollar invested, the company received $6.76 in return, after program costs had been fully recovered.

This approach to calculating ROTI is advocated by Phillips because the same formula and concepts are used for other business investment decisions. He advocates an ROTI minimum of 25 per cent for training initiatives”.

*See Toolkit Section G for Cost/Benefit Ratios: Private and Social Rates of Return*

15. *Smith*: op cit n2 Page. 38
Glossary

Return on Investment (ROI)
Refers to the gains derived by an individual, enterprise or government. Also included are the benefits to communities or society as a result of these investments.

Return on Training Investment (ROTI)
ROTI is linked to cost effectiveness of service delivery and gives VET managers and administrators an indication of their returns on a particular activity.

Tracer Study
A study to gather information on the labour market performance of VET graduates. They usually take the form of surveys sent to graduates at successive times eg 3 and 6 months after the completion of their studies. They can measure: income, hours worked, on-the-job training, further education, training satisfaction, training contribution to employment. These results can then be compared with district or national averages.

Reverse Tracer Studies
Aim to identify which paths to skills acquisition lead to certain occupations and qualifications. Surveys would look at prior schooling, training, and work experience. This can illustrate the paths for entry into each occupation. VET managers can then assess the actual contribution of their training programs to the development of skilled labour.

Private Rate of Return
The private rate of return on educational investment is measured on the basis of the earning difference before and after training. This can be calculated by including the private cost (fees etc) and income foregone during the length of the training. Private rates of return are calculated after tax.

Social Rate of Return
Social rate of return is estimated by using the same earning differences but calculated before tax. These cost elements are considered: income foregone plus direct training cost borne by the trainee plus public training expenditure per student per year.

Benefit/Cost Ratio (BCR)
The BCR is the program benefits divided by program cost.

Program Benefits
Are the net benefits from a training program. These could include: increased income, productivity, profits and efficiency.

Social Benefits
Can be difficult to measure and include: better health, less crime, more cohesive community, up-skilling of the community.
References


Bibliography

Figgis J; Alderson A; Blackwell A; Butorac A; Mitchell K; Zubrick A: “What Convinces Enterprises to Value Training and Learning and What Does Not?”, National Centre for Vocational Education and Research Ltd. [www.ncver.edu.au] 2001

E Financing

1. Introduction

The financing of VET whether at a national, state, district or at an institutional level is a management function.

“VET funding can be sourced through the private funds of companies or individuals, their families or households, from the government or by other means such as grants from donors. The funding can take place directly or indirectly in the form of supply or demand-side financing. The routing of funds may be done through the government eg via tax collection or levies or through the affected parties through tax relief or tax deductions.

Each combination will send signals to the parties involved; enterprises in particular will react to incentives or disincentives to engage in VET.

Financing of VET is closely interlinked with poverty reduction. It serves to create choices for people within training and labour markets”.

Financers whether they be government, private or donors are increasingly requiring more accountability in relation to both financial accountability and outcomes.

“Financing VET implies not only sources of funding, but also the manner in which financing is organised, who receives training funds, for what purpose and on what conditions”.

In this section we look at the types of training and who pays for it.

Short term courses for employment as opposed to longer term technical training.

There is no “best practice” model, all have advantages and disadvantages, with most countries adopting a range of funding mechanisms most suited to their situation.

These arrangements may be short or long term to achieve a specific outcome eg training of unemployed people or training for specific skills outcomes.

Political, economic, social and cultural factors have a strong influence on financing. In most developing countries the public sector tends to be the major financer of VET.

Funding decisions:

Vet funding can be geared towards sections of the labour market where there are skills gap shortages or career opportunities.

“Other considerations are socially or politically motivated.

1. Policies orientated towards poverty reduction and equity of opportunities may subsidise the training of vulnerable groups and people living in remote areas.

2. Processes of restructuring the economy and the labour market from agricultural predominance to industry and service-orientation are usually accompanied by VET in order to facilitate employment in non agriculture jobs.

3. Governments see the provision of skilled labour as an added advantage to attract foreign investment.

4. Maintain or strengthening competitiveness in export markets often requires support through specially designed VET measures”. 3

Co-financing is seen as a promising development, with public training organisations given the option to raise revenue through selling services independent of their core (public) funded activities.

2. Financing Goals

General Goals:

- Increasing the efficiency of vocational education measures
- Contribution of the finance model to improving social justice.

Specific Goals:

Vocational education finance should contribute to

- Adapting the range of training and further training opportunities to individual demand
- Covering society’s requirements for qualifications
- Achieving high quality training and further training
- Avoiding discrimination of certain potential client groups in the VET system
- Reducing the spread in quality of training and further training
- Avoiding structural inequalities between vocational learning programs and the need for qualifications in the employment system
- Reducing as far as possible the costs of regulating and administering training and further education.

3. Which type of Training?

i. Pre Employment Training

This includes pre employment programs for future employment or self employment

- General Education
- Literacy
- Job Search Training
- Generic Skills Training.

ii. Continuing Vocational Training

Can be enterprise or institution based

- Upgrading skills
- Technological or Organisational change training
- On-the-job training.

iii. Training for the Unemployed

- Labour Market Training – short skills based
- Retraining and Retrenched worker training.

4. Lipsmeier, A; Georg, W; Idler, H; opcit n3 Page 45. (Adapted)
4. Who should pay for the Training?

VET is conducted for the benefit of both trainees and employers, with an additional benefit to the community as a whole.

These are sometimes defined as “private and social” benefits.

“Financing usually comes from a variety of sources with differing mixtures in developed and developing countries”.  

The financiers will contribute according to their own interests and goals.

“Government budgets, aimed at promoting economic growth and increasing employment are one of the major sources of VET funding.

Governments view this as their responsibility to provide entry level vocational training. This is when the private sector is unwilling or unable to undertake this training”.  

“Government financing may be complemented and/or substituted in part through community financing (direct or fund-raising) or, in development work through donor financing”.  

The following funding agencies (often also known simply as, financiers/finders) can be considered:

- State (central or regional government, municipalities etc)
- Private individuals (learners/clients or their families)
- Employers/enterprises (employer organisations)
- Employees (employee organisations)
- Independent (profit or not for profit) executors
- International organisations (I.N.G.O’s).

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5. Gasskov: op cit n1 Page. 14  
6. Gasskov: op cit n2 Page. 3  
8. Lipsmeier, A; Georg, W; Idler, H: op cit n4 Page. 47 (Adapted)
i. **Government Role in Financing**

In addition to public responsibility for providing entry level training, VET institutions are expected to provide transferable qualification, within the country which is considered in the public interest.

These benefits accrue over a long period of time and contribute to the nation’s common wealth.

“Public funding is widely perceived as having the power to create equal training opportunities for individuals and employers. Improved productivity and employment promotion are usually regarded as the most important priorities. Thus; public financing of training is justified as long as trained workers can be absorbed in employment or in gainful self employment”.

UNEMPLOYMENT can result from both internal and external factors.

- Technological change
- Industry restructuring or relocation
- Conflict or political instability
- Government policy eg tariffs, exporting/importing regulations
- Financial controls
- Economic management.

Governments usually take on the role of retraining and short term labour market programs for the unemployed or people disadvantaged through race, religion, disability, age or gender.

Governments may seek co-financing for their training programs and contract national, state, private or public providers to conduct this training.

**State and District Financing**

Roles differ in every country. While there are advantages in decentralising training, management and delivery to the local level, in recognition that local providers are more familiar with training needs and the operating environment, this can be costly and result in regional distortions creating areas of advantage and disadvantage.

It is the role of government to correct any distortions that may occur.

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5. **Gasskov**: op cit n3  Page. 4
ii. **Employers Role in Financing**

“Employers are the second major source of VET financing, in some (developed) countries their contribution outweighs that of government. In theory they receive benefits in the form of higher productivity and profits”.

6. Gasskov: op cit n4 Page. 3

Employers are more likely to invest in training for workers if they are confident they will receive a return on their investment ie if workers will stay long enough following the training to provide a (productivity) benefit.

Employers may conduct training themselves or contract training out to training providers.

Larger enterprises often take a long term view of profitability, in relation to return on investment for training.

In Germany under the “dual system” of training, employers often make a significant contribution to training apprentices.

The trainees’ productive work on-the-job is generally far below their training costs. The government is prepared to make a national loss on training for long term benefits.

In most countries it is difficult to get small enterprises interested in training, more so in developing countries.

Employers are concerned primarily with short term gains and would prefer to train on-the-job, outside of the formal training system.

iii. **Job Seekers**

“In principle trainees should finance the full cost of training, since they are the major direct beneficiaries”.

7. Gasskov: op cit n5 Page. 3

Because of the increased post training value of their skills they can expect high earnings. Individuals can finance their training by accepting reduced wages during training.
Trainees also use family savings to fund their training. However trainees who are often school leavers cannot always afford the full cost of training so governments, NGO’s or INGO’s subsidise this training.

In addition, as many VET systems are “supply driven” there is no guarantee of employment as often there are more graduates than available employment places. This further reinforces the argument for subsidisation.

It is generally regarded that trainees are more selective in their choice of training, more motivated and likely to complete if they make a personal contribution to their training.

**Box 20**

**Australian New Apprenticeship Program – National Training Wage**

To encourage employers to take on a trainee or apprentice a National Training Wage has been introduced in 1994 and reviewed annually. The Wage covers 128 nationally accredited Training Packages from Certificate Levels I to III. Wage levels are divided into A, B & C Skill Levels. The Wage is based on the Highest Year of Schooling Completed (Year 10, 11, 12) plus the number of years out of school.

The highest wage being for a Year 12 graduate, 5 years out of school.

An adult trainee undertaking a Certificate LV course receives a higher wage for a 2 year traineeship based on A, B, C Skills Levels.

There is also a Wage for part time school based traineeships.

Employers are offered financial incentives to take on disadvantaged people eg Disabled New Apprenticeship Wage Support, Disadvantaged Mature Aged (over 45) apprentices.
iv. Community Financing

Co-financing of training with the community can include cash and in kind contributions.

Box 21  SKILL Nepal

SKILL Nepal is a project of Helvetas, Nepal implemented in 1992.

SKILL’s aim is to impart skill-orientated training programs in the informal sector to disadvantaged people who do not have access to formal training.

This has been achieved through forming partnerships with local communities and delivering training through mobile training to rural areas.

SKILL Nepal is regarded as one of the pioneers and most effective providers of mobile skill training in Nepal.

In 2002 SKILL Nepal received funding from UNESCO to implement skills based training for 16 adolescent girls who were early school leavers in “Computer Operations, Repair and Maintenance”.

The objective: to impart hands on skills in computer repair and maintenance to enable them to find employment. Prior to the training a market analysis was conducted to determine if jobs existed for people with these skills.

The course was conducted at premises provided by the Trivanta Cooperative School’s premises in cooperation with the Bungamati Village Development Council. The course length was 561 hours, 4 hours per day, 6 days per week.

The employment rate following the completion of the course was 100%.
Local community, NGO’s and religious organisations may contribute in partnership arrangements.

Religious institutions often run their own training institutions and schools with government subsidies.

A likely result is that this may create regional disparities, with only better off communities being able to afford contributions to training.

v. International Non Government Organisations (INGO’s)

INGO’s contribute to the establishment and ongoing VET financing in developing countries.

This includes the formal sector, public institutions and funding for labour market programs.

INGO’s are increasingly wanting a higher level of accounting for financing and funding tied to outcomes and targets.

A common problem is that INGO’s offer an amount for training which may not reflect the actual cost of the training.

5. Management approaches to Financing

There are three basic approaches:

i. Funds Disbursement used in both developed and developing countries.

Funds are provided to cover both direct and indirect costs, “irrespective of the types of program they deliver, enrolments and outputs, budgeting and funding per institute rather than for output”.  

This system assures institutions of ongoing secure funding.

The disadvantage is that there may be no direct linkage to labour market demand, training people for non existent jobs.

Efficiency and cost effectiveness can suffer.

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8. Gasskov: op cit n6 Page. 198
ii. Output Financing

Financing is dependent on established priorities, outcomes and outputs (targets).

This can include: the successful number of graduates and achievement of employment targets.

“These schemes usually incorporate mechanisms for measuring performance and outputs/outcomes and they link funding to achieved outputs”.  

Output financing also assumes that courses will have different enrolments and course costs will vary with the more sophisticated courses being more expensive.

The disadvantage of this is that institutions may undertake “creaming” ie taking students who have the most likely chance of success.

This may require government intervention to ensure equity groups have access to training.

Validation of graduates’ income and employment is best conducted by an independent organisation to ensure authenticity.

Tracer Studies, which are commonly used to track graduates employment are not always accurate, employment and employability can be affected by factors unrelated to the training.

iii. Investment Financing

This approach views training as an investment, in social and private rates of return.

Programming and management decisions in relation to resource allocation can be made on the basis of expected cost effectiveness and rates of return.

This approach relates to a commonly held view that governments have a social responsibility to provide entry level training on an equitable basis, and that this training cannot be fully provided by other providers or market forces.

9. Gasskov: op cit n7 Page. 198
iv. **Tendering**

Governments are increasingly using tendering as a mechanism for delivering entry level training. This works well in a developed training market where there are a number of established training institutions.

Tendering can be cost sensitive – price is a factor in decision making OR the quality of the tender (in relation to meeting the criteria) is the main consideration. In this latter situation the price is usually fixed.

Alternatively the tendering decision could be based on the tender quality and price, with a weighting given to both.

If it is a national tender, larger organisations have a distinct advantage as they can tender over a wider area, reducing the number of contracts the government enters into.

Smaller organisations have the advantage of having better knowledge of local labour markets and networks within the community.

Capacity to deliver, flexibility, the ability to be able to respond quickly to tenders, past performance and the ability to harness additional resources to deliver the training are important considerations for tenders and purchasers.

*See Toolkit Section J*

v. **Market Orientated Voucher Systems**

Training voucher programs are used to develop training markets.

“Voucher programs are designed to ensure the sustainability and competitiveness of the training market through consumer knowledge of the availability, popularity and benefits of courses offered by a variety of training providers”.

They are not used where there is a well developed training market eg where there are a number of providers delivering entry level training. The exception is where vouchers are issued to disadvantaged groups who could not otherwise afford to attend.

10. **Goldmark, L; Botelho, C; de Andrade Orozco, P:** SDC “SED Working Paper No 2”. 2001 Page 3
Vouchers can be issued to micro enterprises to distribute to intending and unemployed people for training at their business.

Vouchers are designed to lessen risk for the consumer and training providers are assured of payment.

**When Are They Implemented?**

- When there is a critical mass of training providers  
  This is difficult in rural areas where there are fewer providers
- In response to difficult economic situations
- Governments decide to increase their investment in training.

**Voucher Systems Work Best When…**

They are more likely to be successful in urban markets where there are a large number of training providers.

Or in mid level towns where there is a high demand for training and no oversupply of training providers.

Also when:

- Consumers have a choice between training providers
- There is a market assessment to ensure there will be sufficient takers
- They are the main source of finance for courses on offer
- Training providers participation is voluntary
- An exit strategy is planned on completion of the program
- Strengthening of training providers is undertaken during the program

*There is a danger of providers becoming reliant on the voucher system for income.*

- There is a good administrative system to support the voucher program
- Consumers have good information on courses available, times of training and length of courses.
Box 22

Vouchers in Latin and Central America

The concept of vouchers or coupons is developing in Latin America. Since 1995 programs have begun in Ecuador, Paraguay, Peru, Bolivia, Argentina and Nicaragua. The programs in Ecuador and Peru are large and run by the Inter-American Bank of Development (IDB) and the National Financial Corporation (CFN).

The programs operate over wide geographical areas, with a budget generally between US$1-3m, targeting micro enterprises. As there is no developed training markets, programs are dependent on state owned or not for profit providers. Since these providers survive on subsidies, they are less likely than private providers to learn to develop products that will generate profits after the program ends.

Determining how many private providers exist and how to attract new ones is a challenge for administrators.

In 2001

<table>
<thead>
<tr>
<th>Country</th>
<th>Distributed</th>
<th>Target</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ecuador</td>
<td>39,488</td>
<td>57,200</td>
<td>69%</td>
</tr>
<tr>
<td>Peru</td>
<td>7,550</td>
<td>32,000</td>
<td>24%</td>
</tr>
</tbody>
</table>

11 and 12

11. Goldmark: op cit n1 (Adapted)
12. SWISSCONTACT (Adapted)
   Rivera, C; Ordonia, K; Corella, M; Program for the Services of Business Studies
   Program of Training by Coupons
   CFN & BID, ATN/ME-5612-EC (Adapted)
vi. **Enterprise Sponsoring**

Enterprises can arrange for off-the-job training for their employees. This can be done during work or after hours.

Training can be provided at a work site or at the training institution.

These courses tend to be short and are linked to an identified need eg improved sales through customer service training or the introduction of new technology.

Employers expect a return on this investment in the form of increased productivity and profits.

Employers hope that the trained workers will stay in their employ.

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**Box 23**  
**CASE STUDY**

**Training Voucher Program – BONOPYME – PERU**

In Peru, Swisscontact together with Ministry of Labour, initiated a training program for Small and Micro Enterprises using the voucher approach.

The project is funded by the National Fund for Promotion of Employment. Swisscontact is in charge of fund management and technical assistance to the project team.

BONOPYME offers training vouchers to entrepreneurs or their employees, who can get discounts up to 75% on the cost of more than 800 accredited training programs. The voucher for technical assistance allows entrepreneurs to contract consultancy services to improve operations. A scholarship voucher facilitates the induction of graduates from vocational schools to gain work experience in SME’s.

Training programs are mainly offered by NGO and academic institutions both public and private. Technical assistance is provided by local consultants, the principal partner for the scholarship component are public and private vocational training schools and entrepreneurs.

[www.swisscontact.org](http://www.swisscontact.org)
This is often given as a reason for not investing in training ie workers with new skills will leave or ask for more pay.

Because of these reasons the training tends to be directed towards mid and upper levels of employees, with the bulk of training for unskilled and semi skilled workers usually occurring on-the-job.

In a competitive training market employers will select training providers based on:

- Reputation and experience in their choice of training
- Accreditation (for short non accredited courses this may not be important)
- Cost competitiveness
- Availability (providing training at a convenient time for their employees).

As cost is a major factor for employers, training providers need to be aware of market prices in a competitive market.

vii. Individual Sponsoring

Individuals are able to finance their training through a number of mechanisms including individual contributions and external assistance.

These include:

- Student fees
- Training allowances and credits
- Student loans
- Scholarships and grants
- Stipends
- Vouchers for a guaranteed sum.

Some allowances are linked to labour market programs. Currently in Australia unemployed people are eligible for a training allowance, to be spent at the training provider of their choice, after completing 26 weeks of a work experience program, valued at $800, funded by the Federal government.

In this case the government has intervened to direct training at a selected group, long term unemployed.
Table 7. Synopsis of Funding Schemes/Funding Sources for VET (Approach similar to Those of V. Gasskov, 1994 and 2000)

<table>
<thead>
<tr>
<th>Type</th>
<th>Schemes or forms</th>
<th>Management</th>
<th>Common Objectives</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public financing out of general tax revenues</td>
<td>Direct payments to government institutes</td>
<td>Through MoF and line ministries</td>
<td>Improved productivity, employment promotion, equal opportunities and social equity</td>
<td>Used almost anywhere in formal VET systems</td>
</tr>
<tr>
<td></td>
<td>Subsidies to private VET institutes or corporations</td>
<td>Line ministries, local governments, municipalities</td>
<td>Strengthening of market forces, creating competition for public providers, diversifying VET</td>
<td>Subsidies are given in most developed countries</td>
</tr>
<tr>
<td></td>
<td>Tax reductions or rebates (as tax deduction or tax credit)</td>
<td>Tax administration/ MoF</td>
<td>Incentives for employers to engage in VET</td>
<td>A very weak incentive where tax coverage is weak</td>
</tr>
<tr>
<td></td>
<td>Provision of loans</td>
<td>Line ministries, local governments, self administration of students</td>
<td>Strengthening the demand side of training, increasing competition amongst providers, social equity, equality of opportunities</td>
<td>Works in Germany and in the UK “Career Development Loans (CDL)”, needs additional administration</td>
</tr>
<tr>
<td></td>
<td>Provision of scholarships or vouchers</td>
<td>Line ministries, local governments, labour administration</td>
<td></td>
<td>Vouchers have been tested in the UK and USA; competition increased but the need for information about the potential and performance of suppliers (UK) requires additional expenditure</td>
</tr>
<tr>
<td>Levy-based financing</td>
<td>Revenue-generating levies</td>
<td>Tax administration, MoF, distribution through training corporations</td>
<td>Generate revenues to be used in VET, fund private VET institutes</td>
<td>Disincentive for enterprises to engage in training (Brazil), used for training of unemployed in industrialised countries (Japan, Germany,...)</td>
</tr>
<tr>
<td></td>
<td>Payroll levy exemption schemes</td>
<td>Special administration for setting compulsory targets and for inspection</td>
<td>Reward companies financing training by relieving them from levy payments</td>
<td>France: complicated but widely accepted system; South Korea: companies tend to pay the levy rather than engage in training</td>
</tr>
</tbody>
</table>
### Levy-based financing

<table>
<thead>
<tr>
<th>Type of Scheme</th>
<th>Description</th>
<th>Benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Payroll levy-grant schemes</td>
<td>“Skills development fund” supervised by stakeholders</td>
<td>Develop training policies and support facilities in individual enterprises, financed through a training fund. Encourage enterprise-based training by reimbursing training costs.</td>
</tr>
<tr>
<td>Training cost reimbursement schemes</td>
<td>Industrial Training Fund (Nigeria); Industrial Social Fund set up by employers and unions (Netherlands)</td>
<td></td>
</tr>
</tbody>
</table>

**Singapore**: Now directed at low-skilled workers only and includes small companies, very successful; introduced in UK but discontinued about 10 years ago, employers disliked government intervention. **Nigeria**: Strong central influence, high administration costs. **Netherlands**: decentralised (about 80 funds) without central government interference.

### Private financing

<table>
<thead>
<tr>
<th>Type of Scheme</th>
<th>Description</th>
<th>Benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fees paid for courses</td>
<td>Privately managed, paid by individuals or enterprises</td>
<td>Mobilise additional funds and strengthen the demand side of training.</td>
</tr>
<tr>
<td>Accepting reduced wages during training periods at enterprises</td>
<td>Enterprises and employees or representatives, co-financing through levy funds, for unemployed; labour administration</td>
<td>Employers: Train directly for job requirements or scheduled innovations. Government: retrain unemployed to become attractive on the labour market. Employees: maintain or improve employability and career prospects; aim for job enrichment; comply with company’s code of conduct.</td>
</tr>
<tr>
<td>Training after working hours</td>
<td></td>
<td>In Germany practised in special programmes for unemployed or trainees as an incentive for smaller and medium-sized companies to engage in training.</td>
</tr>
<tr>
<td>Repayment of training loans</td>
<td>Privately paid, during grace periods interest is covered by government or employers</td>
<td>Recover costs of training. Banks must be provided with default guarantee by the government.</td>
</tr>
</tbody>
</table>

Use of individual funds: May have socially exclusive effects, if loan schemes or scholarships for poor strata of society are not in place. **India**, Private Industrial Training Institutes: High social demand and low purchasing power in poor target households reduce the cost and quality of courses offered.

In Germany practised in special programmes for unemployed or trainees as an incentive for smaller and medium-sized companies to engage in training. Training after hours by companies is mostly used for non-technical courses, like IY, languages and courses in management, commerce, accountancy etc.; requires a diversified offer like in India’s big cities.
GOVERNMENT INCENTIVES

6. Cost Sharing and Co-Financing Mechanisms

i. Traditional Traineeship - Apprenticeship Schemes

“In traditional apprenticeships costs are usually shared between the trainee and employer.

The trainee accepts lower wages than he or she could earn elsewhere.

The employer bears the cost of providing training and the apprentice allowance, while keeping the income from the sales of trainee-made products and services”.

Employers often assist with providing accommodation for apprentices in developing countries.

ii. Dual Systems

Dual systems are emerging as a form of apprenticeship training.

These have been practiced for some time in countries such as Switzerland and Germany and now in developing or transitional countries.

They comprise a direct contribution from the trainees (student fees) and the employers (wages) while the training institution based “off-the-job training” is subsidised by government.

Other course components eg specific courses or skills tests are organised or financed by employer associations.

In Australia costs are shared, as above, with apprentice wages established under national wage awards. *(See Manual Section E Box 20)*

Apprentices are tested against national skills standards administered through State accredited training institutions.

Employers are offered a subsidy from the government to engage an apprentice, which normally lasts for four years.

---

iii. **Revenue Generating Levy Schemes**

Governments introduce employer training incentives for economic and strategic reasons, primarily as a means of establishing VET institutions.

This is usually achieved through a compulsory tax on enterprises (sometimes related to their size or turnover) administered by governments to finance private and public VET institutions.

These mechanisms may be short, medium or long term, with the view to increase national productivity.

Employer subsidies have advantages and disadvantages.

**Advantages:**

- Reliable source of funding VET – in developing countries where funds are short
- Strengthening VET institutions
- Can be centrally developed
- Provide financing for training disadvantaged groups.

**Disadvantages:**

- Training fatigue (amongst employers)
- Training for training sake with no immediate benefits
- Revenue may not all go into VET but into consolidated revenue
- Employers may not receive training services in proportion to tax paid, also their employees may not need training
- Difficult to administer and creates bureaucracies.

**Requirements:**

- Sufficient number of enterprises to generate revenue
- A functioning tax collection system
- Good government employer co-operation.

Levy financed VET institutions should be made transparent and accountable to employers and the general public.

14. *Gasskov*: op cit n8 Page. 61 (Adapted)
Examples of Levy Schemes

Brazil: a percentage of industries monthly payroll is paid to the government for private vocational institutions.

Part Levy Exemptions

“There are exemptions which allows firms to spend a proportion of their payroll levy bills internally to cover enterprise based training, or a fixed percentage of their payroll can be spent on-the-job training”.

Japan: Employment Insurance scheme subsidises employers’ costs of vocational training programs and maintains public VET institutions.

Employers and workers pay into the scheme.

“The payroll levy consists of a percentage of enterprise payrolls at a fixed rate per hour or a fixed rate per employee”.

Taxes on Work Contracts and Exports

These are training funds generated through taxes on enterprise turnover of particular goods and services.

In the state of Queensland, Australia, the purchasers of construction services are obliged to pay levies which are calculated as a percentage of the cost of building.

Part of these funds are used to fund a Technical Training Centre for apprentices entering the building and construction industry.

iv. Levy Exemption Schemes

“A levy exemption mechanism allows firms to eliminate or reduce their levy obligations by the amount of training they provide or purchase”.

15. Gasskov: op cit n9 Page. 65
17. Gasskov: op cit n11 Page. 240
This assumes that enterprises know what their training needs are and will spend their money on appropriate training.

Enterprises are exempt from paying the levy and the money remains with the organisation.

This scheme is supervised by the government.

**Advantages:**

- Low cost to administer
- High employer satisfaction, freedom to choose training.

**Disadvantages:**

- Money may be spent ineffectively by employers and employees
- An individual (enterprise) rather than a selected approach to financing.

v. **Levy Grant / Reimbursement**

“Levy grant funding schemes use payroll contributions collected from enterprises and distributed between firms as grants”.

Grants are distributed on a case by case basis and may not correspond to an enterprise's levy payments.

Enterprises that actively train may receive more funds.

“Levy reimbursement schemes reimburse training costs to firms. Firms’ individual training expenditures are closely linked to their levy contributions”.

Training bills are sent to the administrators of the scheme.

**Advantages:**

- Schemes can be selective in funding the most appropriate training
- Training can be directed at industry wide training initiatives.

**Disadvantages:**

- Costly administration
- Good management is required
- Levy organisations may not meet the criteria for training.

18. Gasskov: op cit n12  Page. 18
19. Gasskov: op cit n13  Page. 240
7. **Self-Financing Training Institutions**

Training institutions can earn income through renting out their facilities eg training rooms, computer laboratories, when they are not in use.

This is only likely to generate a small amount of income.

They can also sell products and services that are produced by students, these are sometimes called “Production Institutions”.

This has a number of advantages:

- The institutions/schools can achieve full financial independence
- Schools are linked closely with markets and the business community, suppliers, traders etc
- Graduates have a good opportunity of graduating with skills in market demand.

In this context institutions must have a high degree of autonomy and independence, with sound management and community support.

Costs are likely to be higher ie equipment and materials. All courses, both short and long, must be financed from income from sales.

The difficulty is balancing the need to earn income for both operational and education goals.
Box 24  
CASE STUDY

Kumbeshwar Technical School  
Kathmandu, Nepal  
A community based self-financing school.

KTS commenced in 1983 as a Day Care Centre also teaching literacy and community health. In 1995 carpet weaving and carpentry began and the Vocational Training Centre in 1997.

Objectives:
To en-power socially and economically disadvantaged people and increase their access to employment opportunities through education and training.

Target Groups:
Underprivileged people with no land, not enough food, from lower castes, as well as women from destitute families.
KTS has developed 6 core programs for the community. KTS has three large buildings which were built with help from international donors.

KTS receives no government funding, ongoing “sponsorship” continues from international donors, the bulk of the funding comes from the sale of products, knitwear and carpets to Japan, Europe, U.K., Denmark and Australia.

The Vocational School has three main programs:
- short term in Carpet Weaving (4 months) and hand knitting (2hrs/day, 3 months)
- and longer term in Carpentry (2 years).

Students do not pay fees and are provided with a small allowance.
Entry requirements have to be low and flexible to give access to the most disadvantaged.

Annually over 1000 people benefit directly from KTS activities and 5000 indirectly. KTS manages a Nursery and Primary School, 230 students attend free of charge. A day care centre is provided for the children of women spinners, weavers and carpet trainees.

KTS established a home for 21 disadvantaged children whose families were unable to provide care for them. A child nursery helps women to attend training.

“Since 1994 KTS has been running without any major funding. At present more than 80% of expenses are covered by sales revenue of KTS products”.

Kumbeshwar Technical School Annual Report 2002
8. Financing Labour Market Training

“Labour market training involves entry-level courses, employee upgrading programs and re-training for the unemployed, which may be conducted by general education and vocational institutions, special labour training agencies, enterprises or private institutions”.  

Funding is provided through government unemployment assistance programs.

Unemployment insurance funds, in some countries are also used to conduct training courses.

i. Direct Funding

“National labour market training agencies have been instituted in almost all industrial countries. They aim to train young people, retrain the unemployed and offer upgrading programs for workers”.  

Their aim is to train people for existing or projected jobs. They can be large national organisations or smaller organisations that tender for contracts.

ii. Contract Funding

This occurs when governments contract out labour market training.

National training agencies compete with private providers in bidding for contracts.

This may occur when government perceives a need or to address imbalances in disadvantaged groups eg retrenched mature aged workers.

“In some countries labour market training agencies have been fully incorporated and are required to operate with no guaranteed funding at all”.  

Training providers are usually paid according to the number of trainees completing the training and graduates gaining employment.

20. Gasskov: op cit n14 Page. 218
21. Gasskov: op cit n15 Page. 219
22. Gasskov: op cit n16 Page. 221
iii. **Funding Through National Programs and Management Intermediaries**

In some countries, labour market training is funded through national programs. Contracting the work to either public or private training providers or tendering on the open market.

The latter where there is a well developed training market.

In the USA Federal funds are distributed to State governments and local providers.

In Australia, long term unemployed are eligible for a Training Allowance, to be spent on the provider of their choice, after completing a six month, part time work experience program.

Private Job Placement Agencies with government contracts are given funds through a National Job Seeker Account to spend on training for their long term unemployed.

This is administered through the Federal governments’ Job Network Program.

Governments can also create intermediate management bodies, para government institutions which are created and staffed with professional administrators. These institutions are directly accountable to the government.

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**9. New Developments and Financing Implications**

The following are trends internationally in the VET sector.

1. Training Markets – the financing of public and private training providers through a variety of schemes to strengthen training markets.

2. Privatisation of training markets with private providers competing with public providers and competition between public providers. The aim being to increase competition and cost effectiveness.

   The result is often a reduction in prices and income for institutions which can impact on the quality of training.

3. Trainees receiving funding either through: training credits, vouchers and allowances, also attaching incentives to disadvantaged people to encourage employers to give them employment.

4. Recognition that training is an investment and that long term programs require expensive technology and secure financing.
5. The development of national accreditation systems and skills standards for public and private training institutions.

6. An increasing commitment to develop quality training systems that are linked to national standards and qualifications. Together with an interest by financing organisations and training providers in the delivery of quality training.

7. An expansion of cost-recovery based financing of public institutions, co-financing by trainees, government and employers.

8. Public training funds spent under the guidance of employers.

“For example in Chile 70 public technical vocational schools have been devolved to private sector employer associations”.

9. Decentralisation of financing and administration of VET to regional and municipal levels. Assuming that local authorities have a better understanding of their areas’ needs for VET services.

Some funds are raised locally. The advantage of this is that institutions are close to the training demand.

For example, VET is funded in the USA by three levels: local district, State and Federal. With the greatest input by districts with control of programming. Funds are raised locally through property and income tax.

10. Performance based funding on the number of students who pass or gain employment. Training institutions that maintain a high proportion of graduates are rewarded with extra funds.

11. Public training providers are given budget flexibility and autonomy on how the lump budget is to be spent, with clear goals and targets to achieve.

12. The introduction and increasing emphasis on generic skills training combined with technical skills and academic learning to facilitate lifelong learning.

13. Vocational Counselling based on labour market analysis and follow up of employment outcomes of graduates through tracer studies.

14. The emergence of non traditional trainee and apprenticeship training schemes.

23. Gasskov: op cit n 17 (Emphasis added)
GROUP TRAINING COMPANIES IN AUSTRALIA

a. What do Group Training Companies do?

Group Training Companies employ trainees and apprentices and then place them with ‘host employers’, usually small to medium enterprises.

b. Who do Group Training Companies Employ?

Over 40,000 apprentices and trainees are employed by 150 Group Training Companies making the network the largest employer of apprentices and trainees in Australia.

Trainees are paid under a National Training Wage.

Traditionally apprentice employment (up to 4 years) has been the core business, but now also includes trainees (up to 2 years).

c. How do Group Training Companies operate?

Each Group Training Company is an independent, incorporated, not for profit organisation, run on commercial business lines.

- Most group Training Companies receive financial support from the government to assist with administrative overheads
- The expenses to the host employer are minimal and includes a small cost recovery charge for the Group Training Company.

d. What core services are provided?

The core activity of Group Training Companies is managing the employment and training of apprentices and trainees.

- Arranging and monitoring the on-and-off-the-job training
- Arranging alternate work placements when required
- Acting as mentors for host employers, trainees, and apprentices.

e. What additional services are provided?

Many Group Training Companies are accredited training providers. Some employ specialist staff from ethnic groups or to work with people with a disability.
f. What are the advantages of Group Training Companies to employers?

- The selection and administrative work is carried out by the Group Training Company
- Training is co-ordinated by the Group Training Company
- Host employers do not have to guarantee employment for the entire length of the traineeship or apprenticeship.

Box 25  
CASE STUDY  
On-Q Human Resources Group Training

On-Q is a not-for-profit community based organisation founded in Northern New South Wales, Australia in 1988. It is the longest established employment service for people who have a disability in the area.

Group Training provides employment services to employers and over 500 trainees and apprentices covering an area of 600 kms of coastline.

Under this system indentured trainees and apprentices are placed with a host employer. This host entity may change during the term of the employee’s contract. The concept of Group Training evolved from a need to co-ordinate this system of sharing or rotating of trainees and apprentices amongst the various host employers.

On-Q remains the legal employer of the trainee or apprentice and is responsible for establishing and administrating the terms of the Training Contract.

On-Q is also a Quality Assured organisation against international and national disability and Group Training Standards.

On-Q consultants make four visits per annum to monitor the training and performance are progressing towards set benchmarks. These relate to the training, work safety, supervision, pay and working conditions.

Trainees and apprentices include traditional building trades, retail, hospitality and administration.

On-Q received the Trainee of the Year Award in 2003 and 2004 from the NSW Department of Education.
APPLICABILITY OF NEW SCHEMES IN DEVELOPING COUNTRIES

VET institutions internationally are facing many challenges:

- Declining budgets (relative to demand and difficulty financing their operations)
- The majority of VET systems remain centralised and supply driven, which often results in an oversupply of graduates
- The emphasis is on maximum enrolments with little emphasis on quality systems in administration or training. Quality has been improved in pilot programs where rewards are given for achieving outcomes. Some institutions and organisations are pursuing International Organisation for Standardisation (ISO) Registration. See Manual Section D Box no 17, F-Skill/Helvetas Case Study
- Developing countries often have weak training markets, particularly in rural areas. In this situation centralised systems are often the best option until training markets are developed. With low market demand and in an area of low income, privatisation of VET is unlikely to succeed. Governments can stimulate training markets through a number of schemes outlined in 5. above
- Public VET institutions can be given some autonomy and independence to raise revenue, this has proven successful in a number of countries, enabling institutions to subsidise their operations and provide additional services
- Co-financing is seen as potential means of targeting training at particular groups of people and industry sectors. (See Manual Section E, Financing, Box 21, Skill Nepal)
- The lack of labour market and employment information is a problem for VET planners and institutions. Consulting employers, employer associations and Chambers of Commerce and conducting labour market surveys has proven effective in determining labour market demand
- Student fees remain a problematic and contentious issue. While a good method of co-financing training many institutions state that “their students cannot afford the fees”.

This also raises the issue of equity, providing training opportunities for all people. Students who pay fees are more likely to be selective about their education choices and commitment to the training.
Channelling money through students rather than in public VET institutions has proven effective in creating training markets and providing greater choice for trainees.

“Public money channelled through individuals is likely to provide higher rates of return than the same money spent on free public VET”. 24

This can be achieved through training allowances, vouchers and loans. *(See v. Market Orientated Voucher Systems, Manual Section E, Financing)*

These schemes are also effective in strengthening training markets.

VET institutions that provide quality training, corresponding with industry market demand and achieving good employment outcomes for their trainees are more likely to attract public, employer/enterprise and other donor financing.

24. Gasskov: op cit n18  Page. 27
References:

**Gasskov, V:** “Alternate Schemes of Financing Training”, ILO Geneva 1994

**Jägger, Mathius:** “Financing VET”, KODIS Consult GmbH Universitaetstr.69 2003

**Goldmark, L; Botelho, C; de Andrade Orozco, P:** Swiss Agency for Development and Co-operation: “SED Working Paper No 2”, 2001

**SWISSCONTACT: Rivera, C; Ordonia, K; Corella, M:** “Program for the Services of Business Studies Program of Training by Coupons”, CFN & BID, ATN/ME – 5612 – EC

**Lipsmeier, A; Georg, W; Idler, H:** “Dealing with Financing of Vocational Education”. GTZ 2003

Bibliography:

**Gasskov, V:** “Managing Vocational Training Systems”, ILO Geneva, 2000

**Misko, J:** “Getting to Grips with Returns on Investment in Training”, National Centre for Vocational Education Research, [www.ncver.edu.au](http://www.ncver.edu.au) 2001

**Smith, A (Editor):** “Return on Investment in Training, Research Readings”, NCVER, 2001
Addendum
ADDENDUM 1

GENERIC SKILLS

Internationally generic skills are known by a number of terms they include:

- Key Competencies
- Key Skills
- Basic Skills
- Core Skills
- Essential Skills
- Workplace Know-how.

Generic skills are often referred to as “employability skills” in VET.

“There has been broad agreement that all young people need a set of personal attributes and skills that will prepare them for both employment and further learning. The ongoing employability of individuals is dependent on them having a set of relevant skills, as well as a capacity to learn how to learn new things”.

Box 26   Common Elements of Generic Skills

- Basic/fundamental skills: such as literacy, using numbers, using technology
- People-related skills: such as communication, interpersonal, team work, customer service skills
- Conceptual/thinking skills: such as collecting and organising information, problem-solving, planning and organising, learning-to-learn skills, thinking innovatively and creatively, systems thinking
- Personal skills and attributes: such as being responsible, resourceful, flexible, able to manage one’s own time, having self-esteem
- Business skills: such as innovation skills, enterprise skills
- Community skills: such as civic or citizenship knowledge and skills.

Generic Skills can be further defined as:

- essential to preparation for employment
- be generic to the kinds of work and work organisations emerging in the range of occupations or be industry specific
- equip individuals to participate effectively in a wide range of work settings, industry workplace and adult life
- involve the application of knowledge and skill
- be able to be learned
- language and communication, mathematics, scientific, technical and cultural understanding, problem solving, personal and entrepreneurial skills
- be amenable to credible assessment.

Personal Attributes can include:
Loyalty, commitment, honesty, integrity, enthusiasm, reliability, personal presentation, common sense, positive self esteem, sense of humor, balanced attitude to work at home, ability to deal with pressure, motivation, adaptability, empathy, politeness, adaptable to change.

Can Generic Skills be Universally Applied?
Generic skills are conceived differently in various countries as well as by different groups within the country.
The literacy element, being able to read and write in the language of instruction will differ.
Generic skills priorities will also differ between countries, industries and jobs.

For example:

People being trained as Community Care Workers, would be expected to have good people skills: communication, teamwork, respect for clients, sensitivity to cultural diversity, disability and empathy.
Engineering students are likely to place “problem solving” as a priority.
Generic skills should be transferable. They should be able to be taken to a new work place.
Generic skills profiles can be developed and prioritised by training institutions and for courses.

THE AUSTRALIAN EXPERIENCE

In Australia the Mayer Key Competencies were introduced in the 1990’s.

Table 8 Mayer Key Competencies

<table>
<thead>
<tr>
<th>Key competencies</th>
<th>Descriptors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collecting, analysing and organising information</td>
<td>The capacity to locate information, sift and sort the information in order to select what is required and present it in a useful way, and evaluate both the information itself and the sources and methods used to obtain it.</td>
</tr>
<tr>
<td>Communicating ideas information</td>
<td>The capacity to communicate effectively with others using a whole range of spoken, written, graphic and other non-verbal means of expression.</td>
</tr>
<tr>
<td>Planning and organising activities</td>
<td>The capacity to plan and organise one’s own work activities, including making good use of time and resources, sorting out priorities and monitoring performance.</td>
</tr>
</tbody>
</table>

Continued…
Table 8 cont’d. Mayer Key Competencies

<table>
<thead>
<tr>
<th>Key competencies</th>
<th>Descriptors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Working with others and in teams</td>
<td>The capacity to interact effectively with other people both on a one-to-one basis and in groups, including understanding and responding to the needs of others and working effectively as a member of a team to achieve a shared goal.</td>
</tr>
<tr>
<td>Using mathematical ideas and techniques</td>
<td>The capacity to use mathematical ideas, such as a number and space, and techniques, such as estimation and approximation, for practical purposes.</td>
</tr>
<tr>
<td>Solving problems</td>
<td>The capacity to apply problem-solving strategies in purposeful ways, both in situations where the problem and the desired solution are clearly evident and in situations requiring critical thinking and a creative approach to achieve an outcome.</td>
</tr>
</tbody>
</table>
| Using technology                        | The capacity to apply technology, combining the physical and sensory skills needed to operate equipment with the understanding of scientific and technological principals needed to explore and adapt systems.  
4.                                                                                                     |

Recent developments in Australia, UK, USA and Canada have included personal attributes absent in Mayer.

4. Source: Australian Education Council, Mayer Committee 1992, pp. 8-9
The following table compares employability skills with Mayer key competencies:

**Table 9**  
**Summary of ACCI-BCA employability skills compared with Mayer Key Competencies**

<table>
<thead>
<tr>
<th>Employability skills</th>
<th>Key competencies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication skills</td>
<td>that contribute to productive and harmonious relations between employees and customers</td>
</tr>
<tr>
<td>Team work skills</td>
<td>that contribute to productive working relationships and outcomes</td>
</tr>
<tr>
<td>Problem-solving skills</td>
<td>that contribute to productive outcomes</td>
</tr>
<tr>
<td>Initiative and enterprise</td>
<td>that contribute to innovative outcomes</td>
</tr>
<tr>
<td>Planning and organising</td>
<td>that contribute to long-term and short-term strategic planning</td>
</tr>
<tr>
<td>Self-management skills</td>
<td>that contribute to employee satisfaction and growth</td>
</tr>
<tr>
<td>Learning skills</td>
<td>that contribute to ongoing improvement and expansion in employee and company operations and outcomes</td>
</tr>
<tr>
<td>Technology skills</td>
<td>that contribute to effective execution of tasks</td>
</tr>
</tbody>
</table>
Personal attributes

- Loyalty
- Commitment
- Honesty and integrity
- Enthusiasm
- Reliability
- Balanced attitude to work and home life
- Motivation
- Personal Presentation
- Commonsense
- Positive self-esteem
- Sense of humour
- Ability to deal with pressure
- Adaptability.

Note: ACCI = Australian Chamber of Commerce and Industry
BCA = Business Council of Australia

The Mayer Key Competencies are incorporated into all Training Packages. They are identifiable as competencies and skills, which underpin the competency standards.

For example:

- working in teams
- following Occupational Health and Safety
- planning daily work
- grooming and work ethic
- communication in the workplace
- customer service
- professional behaviour
- developing and updating industry knowledge.

They are included as discrete units of competency, as elements of competency and performance criteria.

The experience is that it is more effective to “embed” these within the total training package, as they can demonstrate real work situations, rather than as separate units.

The Australian National Training Authority has developed a comprehensive set of guidelines to ensure key competencies are more explicitly incorporated into training packages.

5. Gibb: op cit n1 Page. 11
6. Gibb: op cit n2 Page. 74
INTERNATIONAL DEVELOPMENTS

“Throughout Europe both government and industry leaders support the concept of generic employability skills. Each country has different approaches to assessment and documenting. There is ongoing debate as to what should be included, particularly with respect to information and communication technology skills, assessment and the link to lifelong learning”.

Table 10  Comparative table of generic employability skills by country

<table>
<thead>
<tr>
<th>Australian key competencies (Mayer Key Competencies)</th>
<th>United Kingdom (NCVQ) core skills</th>
<th>Canada employability skills profile</th>
<th>United States (SCANS) workplace know-how</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collecting, analysing and organising information</td>
<td>Communication</td>
<td>Thinking skills</td>
<td>Information</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Foundation skills; basic skills</td>
</tr>
<tr>
<td>Communicating ideas and information</td>
<td>Communication</td>
<td>Communication skills</td>
<td>Information</td>
</tr>
<tr>
<td></td>
<td>Personal skills; improving own performance and learning</td>
<td>Thinking skills</td>
<td>Foundation skills; basic skills</td>
</tr>
<tr>
<td>Planning and organising activities</td>
<td>Personal skills; improving own performance and learning</td>
<td>Responsibility skills</td>
<td>Resources</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Thinking skills</td>
<td>Foundation skills; personal qualities</td>
</tr>
<tr>
<td>Working with others and in teams</td>
<td>Personal skills; working with others</td>
<td>Positive attitudes and behaviour</td>
<td>Interpersonal skills</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Work with others</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Adaptability</td>
<td></td>
</tr>
<tr>
<td>Using mathematical ideas and techniques</td>
<td>Numeracy; application of number</td>
<td>Understand and solve problems using mathematics</td>
<td>Foundation skills; basic skills</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Solving problems</td>
<td>Problem solving</td>
<td>Problem-solving and decision-making skills</td>
<td>Foundation skills; thinking</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Learning skills</td>
<td></td>
</tr>
<tr>
<td>Using technology</td>
<td>Information technology</td>
<td>Use technology</td>
<td>Technology</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Communication skills</td>
<td>Systems</td>
</tr>
<tr>
<td>Post-Mayer additions; Cultural understandings</td>
<td>Modern foreign language</td>
<td>Manage information</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Use numbers</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Work safely</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Participate in projects and tasks</td>
<td></td>
</tr>
</tbody>
</table>

Source: Adapted from Werner 1995

7. Australian Chamber of Commerce and Industry, Business Council of Australia: op cit n3 Page 4
WHEN ARE GENERIC SKILLS TAUGHT?

Generic skills are not usually taught in general secondary schools. The exception is where VET is taught in the senior years at secondary schools eg Australia.

VET institutions can play an important role in improving their trainees employability through teaching generic skills.

Some academics think they cannot be taught rather they are learned and developed.

Generic skills are acquired over a lifetime and infer lifetime learning, to progress in work.

Adults may benefit from generic skills development.

Example: Retrenched Workers – Labour Market Training programs.

- mature trainees need to recognise and articulate their generic skills and reapply them in a new context
- refine and adopt their generic skills to respond to the employment market.

WHAT DO EMPLOYERS INTERNATIONALLY THINK OF GENERIC SKILLS?

Generally employers have made the following comments:

Australian Example:

- Employers consider that generic skills are as important as job-specific or technical skills
- Employers seek those generic skills that are most important to their business and will choose workers who are strong in this area
- Employers have identified the importance of personal attributes contributing to employability and indicate that these are required as a component of employability skills
- Employers prefer to teach technical skills, they are not comfortable teaching generic skills
- Employers include generic skills as a key feature of job descriptions and the recruitment process
- Employers expect new starters to be adaptable, quick to learn, innovative and be able to deal with change, be flexible
- Employers support the integration of generic and technical skills development, because they feel it is closer to the real experience of the workplace.

Human Resources Development Canada initiated the Essential Skills Research Project in 1994. They found that generic skills were described as enabling the learning of other more job-specific skills.

“From this evidence it would appear that (VET) training programs which emphasise these skills offer their trainees a competitive advantage in the labour market.”

8. Gibb: op cit n3 Page. 28 (Adapted)
9. Gibb: op cit n4 Page. 16 (Emphasis added)
HOW ARE GENERIC SKILLS INCORPORATED INTO TRAINING PACKAGES?

Generic skills need to be incorporated into training packages in a way, which makes it easy for practitioners to interpret and provide a range of strategies to teach them.

“Developers of training packages need guidelines, which describe which skills are important and how generic skills can be built into training packages.”

Strategies must be appropriate to the context, industry and level of the individual.

Teachers need to devise appropriate learning strategies and assessments.

For example learning strategies for aged care could include:

- One on one small group training
- A co-worker system
- Case conferences
- Work books to use on the job
- Workshops
- Self directed learning
- Role plays
- Experiential learning.

HOW ARE GENERIC SKILLS ASSESSED?

Assessment should include:

1/ Well informed professional judgment by assessors and assessor teams.

2/ Learners contributing to the assessment process by gathering evidence of their performance, presenting this in a portfolio.

3/ Generic skills should be tested in ‘whole-work’ tasks, not in isolation.

Assessment Methods:

1/ Holistic judgment – this is sometimes difficult in VET institutions as trainers only spend a relatively small time with students and may not know them well.

2/ Student Portfolios – in Canada and the USA this is the most common approach to illustrate individual achievement. Students become aware of their developing skills. Portfolios contain examples of evidence from activities undertaken during training and through community activities, including sporting, that correspond with generic skills.

3/ Work Experience – this is most useful for a simple report, though difficult to standardise.

4/ Purpose developed instruments – these are standardised and provide a basis for reporting that is readily interpreted.

An integrated approach is preferred using a combination of assessments.

10. Gibb: op cit n5 Page. 67
11. Gibb: op cit n6 Page. 15 (Adapted)
12. Gibb: op cit n7 Page. 35 (Adapted)
<table>
<thead>
<tr>
<th>Assessment model</th>
<th>Strengths</th>
<th>Limitations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Holistic judgments</td>
<td>Authentic, provided relevant situations are chosen for observation</td>
<td>Reliable within context, eg. in an institution, where several raters may be used, but lacks comparability across sites</td>
</tr>
<tr>
<td></td>
<td>Multiple performance levels appear to be discernible</td>
<td></td>
</tr>
<tr>
<td>Portfolio assessment</td>
<td>Provides a rich data source</td>
<td>Summative, rather than formative - limited learning potential</td>
</tr>
<tr>
<td></td>
<td>Compiling portfolio may be valuable learning experience for the learner</td>
<td>Influenced by other factors eg written fluency of author, which may limit content validity</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Lack of comparability among individuals (low reliability)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Time-consuming to extract information from portfolio</td>
</tr>
<tr>
<td>Workplace assessment</td>
<td>High validity</td>
<td>Low reliability: influenced by training of assessors and by opportunities presented by the work context</td>
</tr>
<tr>
<td></td>
<td>High learning potential if judgments are accompanied by informative feedback</td>
<td></td>
</tr>
<tr>
<td>Standardised instrumental assessment</td>
<td>Efficient</td>
<td>Limited authenticity</td>
</tr>
<tr>
<td></td>
<td>High reliability</td>
<td>Summative rather than formative - limited learning potential</td>
</tr>
<tr>
<td></td>
<td>Produces a score comparable across individuals and occasions</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Known precision, can lead to identification of number of discernible performance levels</td>
<td></td>
</tr>
</tbody>
</table>

13. Gibb: op cit n8 Page. 147
### Table 12  
**Strategies used to judge employee’s skill level in specific areas**

<table>
<thead>
<tr>
<th>Personal attributes</th>
<th>Personal contact including:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>- informal face-to-face contact</td>
</tr>
<tr>
<td></td>
<td>- formal interviews, often more than one</td>
</tr>
<tr>
<td></td>
<td>- initial telephone contact, Work experience reports</td>
</tr>
<tr>
<td></td>
<td>School and training reports showing competencies and achievements</td>
</tr>
<tr>
<td></td>
<td>References from previous employers and others in the Community</td>
</tr>
<tr>
<td>Communication and teamwork</td>
<td>Evidence of involvement in community activities and other extracurricular activities</td>
</tr>
<tr>
<td>Problem-solving initiatie and enterprise</td>
<td>Previous work history</td>
</tr>
<tr>
<td>Planning and organising</td>
<td>Social activities</td>
</tr>
<tr>
<td>Self-management, learning and technology</td>
<td>Professional development history/plan</td>
</tr>
<tr>
<td></td>
<td>Goals and dreams for the future</td>
</tr>
<tr>
<td></td>
<td>General interests</td>
</tr>
</tbody>
</table>

Source: Australian Chamber of Commerce and Industry & Business Council of Australia (2002, p.54)

“Facilitators don’t ‘assess’ but rather ‘validate’ evidence presented against the clearly stated criteria.”

Learners are motivated to acquire generic skills if they are formally recognised.

“In Competency Based Training trainees are assessed against a single benchmark of performance, achieved or not.”

Generic skills cover a diversity of industries and occupations, simple benchmarks are likely to be insufficient. Assessment of generic skills is more effective with corresponding technical competencies.

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14. *Gibb*: op cit n9 Page. 54  
15. *Gibb*: op cit n10 Page. 177  
Figure 7: Spectrum of Skills

Life skills

Employability skills

Cross-industry generic skills

Cross-industry technical skills

Occupation-specific technical skills

Vocational Content

* Literacy
* Language
* Numeracy
* Manage own health
* Manage own finances

* Communicate
* Work effectively
* Manage self
* Plan & organise
* Initiative & enterprise
* Creative problem-solving

* Solve work problems
* Plan own work
* Work in a team
* Apply regulations
* Share ideas in the workplace
* Complete documents

* Drive Vehicle
* Use hand tools
* Sell products
* Operate forklift
* Prepare worksite
* Shift materials safely
* Read & interpret plans

* Place and secure cables
* Plant a crop by hand
* Sew garment
* Use levelling devices
* Access the internet

Example of different types of competencies

17. Gibb: op cit n12 Page. 85
Table 13  Employability Skills Framework

| Personal attributes that contribute to overall employability | • Loyalty | • Positive self-esteem |
| • Commitment | • Sense of humour |
| • Honesty and integrity | • Balanced attitude to work and home life |
| • Enthusiasm | • Ability to deal with pressure |
| • Reliability | • Motivation |
| • Personal presentation | • Adaptability |
| • Common sense | |

<table>
<thead>
<tr>
<th>Skill</th>
<th>Element</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication that contributes to productive and harmonious relations between employees and customers</td>
<td>• Listening and understanding</td>
</tr>
<tr>
<td></td>
<td>• Speaking clearly and directly</td>
</tr>
<tr>
<td></td>
<td>• Writing to suit the needs of the audience</td>
</tr>
<tr>
<td></td>
<td>• Negotiation responsively</td>
</tr>
<tr>
<td></td>
<td>• Reading independently</td>
</tr>
<tr>
<td></td>
<td>• Empathising</td>
</tr>
<tr>
<td></td>
<td>• Using numeracy effectively</td>
</tr>
<tr>
<td></td>
<td>• Understanding the needs of internal and external customers</td>
</tr>
<tr>
<td></td>
<td>• Persuading effectively</td>
</tr>
<tr>
<td></td>
<td>• Establishing and using networks</td>
</tr>
<tr>
<td></td>
<td>• Being assertive</td>
</tr>
<tr>
<td></td>
<td>• Sharing information</td>
</tr>
<tr>
<td></td>
<td>• Speaking and writing in languages other than English.</td>
</tr>
</tbody>
</table>

<p>| Teamwork that contributes to productive working relationships and outcomes | • Working with people of different ages, gender, race, religion or political persuasion |
| • Working as an individual and as a member of a team |
| • Knowing how to define a role as part of a team |
| • Applying teamwork skills to a range of situations eg. future planning, crisis problem-solving |
| • Identifying the strengths of team members |
| • Coaching, mentoring and giving feedback. |</p>
<table>
<thead>
<tr>
<th>Skill</th>
<th>Element</th>
</tr>
</thead>
</table>
| Problem-solving that contributes to productive outcomes | • Developing creative, innovative solutions  
• Developing practical solutions  
• Showing independence and initiative in identifying problems and solving them  
• Solving problems in teams  
• Applying a range of strategies to problem-solving  
• Using mathematics, including budgeting and financial management to solve problems  
• Applying problem-solving strategies across a range of areas  
• Testing assumptions taking the context of data and circumstances into account  
• Resolving customer concerns in relation to complex project issues. |
| Initiative and enterprise that contribute to innovative outcomes | • Adapting to new situations  
• Developing a strategic, creative, long-term vision  
• Being creative  
• Identifying opportunities not obvious to others  
• Translating ideas into action  
• Generating a range of options  
• Initiating innovative solutions. |
| Planning and organising that contribute to long-term and short-term strategic planning | • Managing time and priorities – setting timelines, coordinating tasks for self and with others  
• Being resourceful  
• Taking initiative and making decisions  
• Adapting resource allocations to cope with contingencies  
• Establishing clear project goals and deliverables  
• Allocating people and other resources to tasks  
• Planning the use of resources including time management  
• Participating in continuous improvement and planning processes  
• Developing a vision and proactive plan to accompany it  
• Predicting – weighing up risk, evaluating alternatives and applying evaluation criteria  
• Collecting, analysing and organising information  
• Understanding basic business systems and their relationships. |
| Self-management that contributes to employee satisfaction and growth | • Having a personal vision and goals  
• Evaluating and monitoring own performance  
• Having knowledge and confidence in own ideas and vision  
• Articulating own ideas and vision  
• Taking responsibility. |
<table>
<thead>
<tr>
<th>Skill</th>
<th>Element</th>
</tr>
</thead>
</table>
| Learning that contributes ongoing improvement and expansion in employee and company operations and outcomes | • Managing own learning  
• Contributing to the learning community at the workplace  
• Using a range of media to learn – mentoring, peer support, networking, information technology (IT) courses  
• Applying learning to ‘technical’ issues (e.g. learning about products) and ‘people’ issues (e.g. interpersonal and cultural aspects of work)  
• Having enthusiasm for ongoing learning  
• Being willing to learn in any setting – on and off the job  
• Being open to new ideas and techniques  
• Being prepared to invest time and effort in learning new skills  
• Acknowledging the need to learn in order to accommodate change. |
| Technology that contributes to effective execution of tasks | • Having a range of basic information technology skills  
• Applying information technology as a management tool  
• Using information technology to organise data  
• Being willing to learn new information technology skills  
• Having the occupational health and safety knowledge to apply technology  
• Having the appropriate physical fitness and manual dexterity. |

WHAT ARE THE DIFFICULTIES SURROUNDING GENERIC SKILLS?

- “There is no real agreement as to what constitutes these skills or how to validate and recognise them in practice”
- There is disagreement whether than can be taught or are learned or developed
- Generic Skills vary between countries, regions and industries. Therefore they need to be prioritised and teaching strategies developed for each context, this makes standardised teaching materials and assessment difficult to produce
- Generic skills need to be recognised as important skills  
  - by government – developed of national policy and strategies for certification  
  - learners – who often do not recognise them as important as technical skills  
  - teachers – who need training in teaching generic skills  
  - employers – who are often reluctant to teach generic skills
- Difficult to assess personal attributes.

Resources are required to deliver generic skills training, both human and capital.

18. Australian Chamber of Commerce and Industry, Business Council of Australia: op cit n4 Pages. 8/9
19. Gibb: op cit n13 Page. 159
WHAT ARE THE COSTS ASSOCIATED WITH DELIVERING GENERIC SKILLS?

Generic skills training needs dedicated resources to ensure effective delivery.

These include:

1. Staff development - to train the trainers
2. Training package/course development to incorporate generic skills
3. Orientation/induction for trainees on the delivery and assessment of generic skills
4. Development of a record keeping system/student information systems
5. Purchase and/or development of instruments for assessment
6. Facilitators to provide ongoing assistance, feedback and support
7. Costs related to certification – issuing statements of attainment.
ADDENDUM 2

MANAGEMENT AND PLANNING VET SYSTEMS

Management and planning is important both at the national and training institution levels.

“The purpose of VET planning is to establish objectives and translate them into a schedule of operational activities for a set period of time; this will permit budgeting and the distribution of resources.”

This could include: “overall number of training places, enrolments, outputs (number and type of qualifications to be produced) and schedules for producing them”.

Strategic planning in VET should aim at predicting long term trends in the need for employees in geographical areas and industry sectors.

It is acknowledged that this is very difficult and that the economic, demographic and social conditions for employment are likely to change in the future.

However the fact that most VET systems have limited and often inadequate funding it is essential that funds are used in the most cost effective way.

At the international level there are changes taking place in the VET sector with new concepts being introduced into public VET administration.

MISSION STATEMENTS

VET institutions Mission Statements often reflect national priorities and the aims of the institution.

A Mission Statement could include the following options:

- “To provide job related knowledge and skills enabling people to find employment
- To provide vocational knowledge and skills to any citizen who desires them and to increase the proportion of people with formal vocational qualifications
- To ensure a more equitable distribution of national income by providing access to skills for the most disadvantaged groups
- To support national economic priorities by catering to the economic sectors which are expected to undergo rapid growth of output and employment
- To contribute to the creation of employment and self employment.”

The difference between these options is substantial, as are who is responsible for delivery ie: government, social partners, business.

The choice will determine the systems objectives, target groups, planning and allocation of resources.

2. Gasskov: op cit n1, Page. 15
INSTITUTIONAL LEVEL PLANNING

VET Institutions need to develop policies for VET management, including: financing, costing and pricing, as well as establishing performance indicators and criteria.

Appropriate financial accounting systems will need to be in place to enable VET managers and administrators to be able to make decisions on the allocation of resources.

This involves a *Chart of Accounts* that captures all income and expenditure (including overhead /indirect costs) related to all the institutions activities. *(See Manual Section C, Financial Systems)*

Policies should include:

- identification of appropriate people: managers administrators, coordinators and their authority and responsibilities
- measurements of performance, both private and social outcomes
- qualifications awarded and standard levels
- type of delivery: institution based, on and off the job, distance learning, mobile training
- method of delivery: time served or competency based
- methods of assessment
- staffing levels, qualifications and remuneration
- student fees and allowances: training, subsidies, vouchers, stipends
- equity of access
- profits and their allocation
- Code of Conduct.

Training Markets are usually less developed in developing countries making it more difficult to cost and price training courses. This is further complicated by a lack of national curricula, standards and qualifications.

A common complaint is that an individual can attend either a 3 week or a 3 month course eg: electric house wiring (Nepal) and still receive the same qualification and wages on employment. (The longer course may include more vocational education subjects or work experience). Also, that employers do not have confidence in qualifications from training institutions.

The Solution to this is:

- Nationally developed and accredited curriculum
- National system of training provider accreditation
- Established skills standards and qualifications
- Nationally recognised system of assessment
- Monitoring and quality control measures.

*(See Manual Section D5, Quality)*
INSTITUTIONAL STRATEGIES

Institutional strategies will need to be developed to achieve institutional aims and objectives.

At the Operational Level they specify resource allocation for the institution.

Strategies can be short and long term; for example short term Labour Market Training could be planned for a particular target group to improve employment prospects for unemployed women.

Long term training could be industry trade training to acquire nationally accredited and recognised skills qualifications.

Strategies will include:

- Allocation of institutional resources eg. administration, training, infrastructure development, human resources, curricula design etc.
- Assessment of market demand
- Determining cost plus feasibility (do we have the resources and ability to conduct the course)
- Costing to break even or make a profit
- Fee structures: if fees are to be charged
  Fee exemptions: criteria and sources of subsidies for exempt trainees
- Costing before and after training
- Costing for results, effectiveness and efficiency
- Costing for performance.

The cost of measuring an institution's performance has been measured at 1-2% of running costs. Some financing organisations may require this as a condition of verifying employment results. The cost has to be incorporated into the overall running cost for the course or program.

- Developing networks and partnerships with: enterprises, government, community groups, other training institutions, INGO’s
- Quality management: processes and systems.
ADDENDUM 4

INFLUENCING FACTORS ON VET DELIVERY

A. National Policy

Has a major influence on the delivery of VET services at the national, state, district and local levels.

National policy can be changed to meet economic and social conditions, with very few VET systems remaining static over time.

The priority of VET systems is to respond to skills shortages ie. when workers do not possess the level of skills which would enable them to perform with maximum productivity.

Change occurs when developing economies become transitional with an expanding training market, decentralisation of VET delivery and an increase in training planning and delivery by social partners.

All decisions at the National Level will have an effect on VET training delivery with financial implications.

These include:

- The systems mission (what is vocational education and training for)
- Citizens rights to public VET services
- Governments and social partners responsibility for VET
- Distribution of public training services (eligibility)
- National priorities for training provision (including target groups) and system development
- Education and training awareness and teaching principles
- Skills standards and vocational qualifications
- National curriculum for training institutions and vocational curriculum for general education
- Skills assessment for certification
- National textbooks.

B. The Training Market: Demand/Supply

The aim of VET systems is training for work, however with the exception of a small number of countries most VET systems are student demand driven. This more often than not results in an oversupply of graduates in the more popular industry sectors with only a small number gaining employment.

Australia is an example of an industry demand driven model of vocational training.

**Box 28**

**VET Demand Driven - The Australian Model**

The Australian National Training Authority (ANTA) is responsible for the development of the Australian VET system: achieving national objectives, policies, priorities, an efficient network of providers, both public and private and target groups.

VET is market demand driven, with specific outcomes and outputs (targets) attached to funding.

Each State and Territory submits annual plans for priorities and training hours per sector. Their previous years performance is taken into account in the allocation of funding.

Labour market information, industry and employment trends are gathered through a variety of sources and incorporated into training plans:

- Australian Bureau of Statistics
- Industry Training Advisory Boards (ITAB’s, autonomous industry bodies)
- Industry associations, Educational Research Institutions
- Federal Government Labour Market Studies

ANTA develops national strategies to cover a 6 Year Plan.

Annual funding is prepared in the: Directions and Resource Allocation Reports.

The 2003 Report planned for the delivery of 270 million training hours nationally in the following sectors:

- Manufacturing
- Rural and Construction
- Services
- Business
- General Education and Training

Funding for training hours was increased from 2002 levels for business (computing) services and general education, a decline in rural and construction in line with a decline in employment. The 2003 Innovation Strategy included: support for economic development for rural communities and meeting engineering skills needs.

Recent changes include: greater flexibility in traditional trade training, trialing shorter apprenticeships to meet the changing needs of employers and more mature, better qualified young people entering training.

In 2004 there were 417,000 New Apprentices in training (217,600 aged 15 to 24, 147,600 aged 25 to 44 and 51,800 aged 45 and over).

More than 88% of New Apprentices are in work 6 months after completing, compared to 79% of university graduates.

The data shows strong growth in skills shortage areas ie. construction, electro-technology and engineering.

Source: Federal Department of Employment July 2004

ADDENDUM 5

EXAMPLES OF GOVERNMENT AND ENTERPRISE FUNDED TRAINING

i. Secondary School Based Programs that provide VET courses to senior year students. These courses and qualifications may articulate to post school VET training institutions.

ii. Short term courses for young people – often inexpensive and lead to low level skills qualifications or provide vocational guidance.

iii. Training Institution Based Programs – these are longer programs leading to qualifications at the craft level. Labour conditions may have changed when they finish their course and jobs may no longer be available.

iv. Longer term training for young people-in craft/trade that can include a combination of on and off-the-job training.

v. Short and long term upgrading programs for employees - requested and financed by enterprises or undertaken by private individuals at their own expense.

vi. Short and long term retraining programs for the unemployed - which could be from a few weeks to months, training people for current job vacancies.

Training for iv, v and vi requires as accurate as possible labour market information. However the longer the course the more likely it is that labour market conditions will have changed, making planning or VET programs difficult.
ADDENDUM 6

LABOUR MARKET ANALYSIS

Employment growth and job vacancies for individual occupations and qualifications can be monitored.

This can be done through local media advertising or from job agencies.

If job vacancies fall and unemployment rises, this could indicate a skill demand decline.

The number of applicants and time taken to fill a vacancy also indicate skill demand.

Employment data by occupation and gender, particularly when compiled over periods eg: quarterly can give a good indication of growth.

This information which records workers in the formal sector is often more readily available in Developed than Developing Countries.

While it is difficult to forecast industry trends it is important to be aware of trends as they relate to training demand.

There may be other factors though that affect vacancy rates eg: wages, low prestige, caste/class restrictions.

If vacancy rates require training of skilled workers, training providers can react flexibly to train people for these vacancies.

Skills shortages reported from enterprises, reflect demand for current employees, not what they may need for the future.

Employers may take the cheapest labour and not necessarily the most qualified, technically and academically.

Labour Market Surveys have limited use and have a high degree of inaccuracy, however when used with other labour market information can give an indication of skill demand.

Labour market conditions change regularly as do enterprises intentions to employ, surveys need to be done on an ongoing basis.

This information should also be made available to job seekers and private individuals to enable them to make (training) choices.

Other Limitations to Labour Market Surveys:

- Employers must be prepared to freely offer information, lack of trust may inhibit participation
- Employers may employ workers outside the formal economy, they may not want to acknowledge these workers
- Postal surveys have a low rate of return.

The most effective way to conduct the surveys is to arrange interviews, face to face with employers at a time convenient for them.

Local companies can be engaged to conduct the surveys or University Business students.

It is a good idea to get the local Chamber of Commerce and Industry involved or business associations. They may be able to encourage or facilitate members to participate.

See Sample Labour Market survey attached in the Toolkit Section H

Wage Rates and real income across sectors, occupations and qualifications may indicate demand for skills where competitive wages apply.

Enterprise Feedback – the reaction of enterprises to VET graduates provides useful information.

Tracer Studies gather information on graduate placements, earnings and hours of work.

See Sample Tracer Study Forms attached in the Toolkit Section L

Rate of Return on Investment (ROI) is another tool that helps in evaluating the links between the cost of training and improvements in graduates incomes.

ROI is explained in the Manual Section D6

Sectoral Labour Market Analysis, see Toolkit Section H
Box 29

Questions to ask in assessing future demand for VET services

1. Concerning young people’s future demand for courses and the number of training places needed to satisfy the projected demand:
   - Is demand for VET programs going to increase?
   - Can the government afford to fully satisfy this demand?
   - Which courses should become priorities?

2. Concerning sectoral and regional demand for new skilled labour.
   - Which economic sectors or regions will need new skilled labour, if any?
   - Which qualifications will be most needed?
   - Will more training be provided by employers?
   - Should the government provide or support programs for growing/declining sectors and regions?
   - Should the government provide or support programs for workers in employment?
   - What will be the priorities?

3. Concerning disadvantaged groups’ training needs:
   - Who comprises these groups and will their numbers increase?
   - What are these groups’ future needs for VET and which should have priority?
   - Can the government afford to satisfy these needs?

4. Concerning future needs for public VET:
   - Which training needs are priorities for government training?

Summary

A balance needs to be made between the priority training needs of young people and sectoral enterprise needs.
Training institutions with a degree of independence can react flexibly to market signals and enterprise demand.

2. Gasskov: op cit n1 Page. 153
ADDENDUM 7

FACTORS AFFECTING PRICING

i. Training Institution Policy

The level of profit required will affect pricing.

Institutions usually price to break even or make a profit at a fixed percentage.

Public training institutions are sometimes seen to have an advantage over private providers in that they can contribute infrastructure, administration and resources towards enterprise activities at a subsidised rate.

ii. Equity Policy

Training Institutions targeting disadvantaged equity groups are unlikely to charge student fees.

They are likely to offer training allowances, vouchers or stipends to attract trainees.

These may be financed by government, NGO’s or INGO’s.

iii. Highly Valued Skills

Where skills are in high demand, leading to good employment opportunities, higher fees can be charged.

This training is often more expensive as it requires more expensive training resources.

Conversely, in entry level or low demand skills and the courses that include vocational education, lower fees are likely to be charged.

iv. Market Competition

In a well developed training market, with a number of training providers, pricing will be very sensitive with a small price variation.

Training providers may lower the price, below the average and below cost to capture market share.

This is not advisable as losing money on training is not sustainable.
v. Economic Factors

a. International

We are now living in a global village where national boundaries for commerce and capital flows are becoming less important.

In developing countries with cheaper labour, industries can be moved quickly to take advantage of cheaper labour.

Whole industries can be shifted from one country to another eg. garment manufacture in Asia, resulting in unemployment and a decline in demand for skills training.

This is often outside the control of governments and VET planners.

However, planners should attempt to monitor any likely impacts on the labour force and VET system.

In this situation labour market training for retrenched and unemployed workers is a likely intervention.

b. The Local Environment

Even in developed countries with access to a range of data on industry growth and sector employment, it is still difficult to predict the demand for occupational skilled labour.

This is more difficult in Developing Countries without any research and data.

Political or religious conflict can also significantly affect enterprises and the demand for labour.

This may result in an out migration from the conflict area, internally or overseas which further inhibits enterprises operations.

Many Developing Countries are dependent on the export of raw materials and commodities, price fluctuations can have a big impact on demand and employment levels.

In this situation the Government and VET managers should monitor the situation and react quickly and flexibly to any changes or improvements that are likely to lead to an improvement in the business environment and a demand for skilled labour.
c. INGO – Financing

VET systems in developing countries are often financed by INGO’s, in particular labour market programs, either directly or through NGO’s.

Outcomes and targets (equity groups and employment outcomes) are often linked to funding.

This funding is often short term, which makes long term planning difficult.

VET managers need to have the flexibility and resources to take advantage of funding provided by INGO’s.

**Box 30**

**CASE STUDY**

**F-Skill/Helvetas, Kathmandu, NEPAL**

*An example of good practise*

F-Skill is an employment and training program managed by Helvetas, Nepal, who are funded by the Swiss Agency for Development and Cooperation (SDC).

F-Skill commenced in June 2002 and introduced two new concepts to Nepal: Franchising and Impact Financing.

Disadvantaged groups of people are targeted for labour market training through a system of franchising.

Franchisees from the private sector organise training, based on labour market demand, courses can be from one to six months.

Franchisees are only paid for employment outcomes, after their graduates have been employed for three and six months at a minimum rate verified by the Franchisor and F-Skill.

F-Skill provides support services to Franchisees following the signing of the contract to licence the product eg. business training, market research, marketing, trainer training.

To date F-Skill has been very successful.

Over 562 people have been trained, including disadvantaged young people, women and disadvantaged caste groups, by 11 franchisees.

Employment outcomes are over 80% including self employment, a high rate by international labour market standards.

F-Skill has developed a partnership with the governments’ Council for Technical Education and Vocational Training (CTVET) and the Skills Testing Division (STD) to expedite the development of training packages and establishing national skills standards.

F-Skill is in the process of becoming a private not for profit company, franchising the brand SKILL ® Nepal, throughout the country.
ADDENDUM 8

RECENT TRENDS IN VET DELIVERY

The changing internal and external environments that VET operates in both Developed and Developing Countries has implications for financial management, including costing and pricing of products and services.

These include:
- Changing external environment from the impact of globalisation with social, cultural and economic impacts
- Skills shortages and ageing populations are global phenomena for mature economies. Increasingly international companies are locating their operations where skilled labour is located
- Policy reassessment of the role of VET in society and the provision of training resulting from change, including technological change
- The development of training markets, with increased competition from and between public and private training providers
- VET providers orientation is being transferred from education and training to business and services
- VET is increasingly becoming industry – demand driven
- Traditional forms of employment are changing, with an increase in part-time, casual and contract employment. VET training must be flexible to meet their needs
- A process of change is taking place due to the international exchange of information.

Some Innovations and Trends

The National Policy Level

VET’s role is not only to provide skills for industry but also as a key player in helping to create a tolerant, diverse and cohesive society. This includes increasing access to VET by people from disadvantaged backgrounds.

“VET’s responsibility is not just to train students for a job but also for a career. This requires skills of self evaluation, career planning and determining strategies to achieve goals.”

“The principal role of the states regulatory policy in standardising and monitoring of qualification standards is to support market mechanisms by creating and safeguarding formal institutions. Inter-company standards of competence defined above company level and based on partial, modular qualifications are increasingly gaining acceptance on the international vocational training co-operation scene.”

2. Lipsmeier, A; Georg, W; Idler, H; op cit n6. Page 4
Learner Implications

A shift from one post schooling qualification to lifetime learning, both formal and informal.

This is the result of financial markets and technological change resulting in workers needing to change jobs and occupations throughout their working lives.

Learners will need a mixture of vocational, academic and generic skills to undertake lifetime learning.

Training should be in a style and format which suits the learning needs of young and mature aged workers.

The challenge for VET providers is to, “provide a range of courses that equip students with foundation skills and learning to learn skills, courses and qualifications that meet a range of individual, community and industry needs.”

VET Partnerships

There is an emergence of VET developing closer partnerships with stakeholders, including industry, the community and Higher Education. The latter, being important for articulation and credit transfer.

Industry is seen as an important partner in skills and curriculum development. As VET becomes more industry – demand driven, this partnership is essential.

Enterprises are becoming more involved in training. This includes on-the-job training: the delivery of VET in the workplace, through a combination of on-the-job training and block release for institutional based training.

Workplace learning is being given a privileged status over institutional in terms of relevance and authenticity.

Work Experience combined with vocational training can improve trainee’s chances of gaining employment.

“Recent studies in the USA and Europe have indicated that work experience improves participants vocational skills and work habits.”

Industry in Australia is demanding specialisation in skills training to meet specific industry needs, for example in the agriculture and manufacturing sectors.

General Secondary Schools are increasingly becoming involved in VET at the senior levels. Australia has experienced a large growth in the past 10 years: “in 1999, 37% of students in Year 11 and 12 participated in VET, 86% of all secondary schools offered VET.”

3. Wheelan: op cit n1 Page. 9
5. Wheelan: op cit n2 Page. 3
The development of partnerships has resulted in the planning of entrepreneurial and community programs to plan solutions for individuals, enterprises and communities to overcome regional inequalities.

The Training Market

The development of training markets has resulted in an increase in private training providers, where markets have been deregulated.

Private training providers are often accredited and regulated by a national or state/district authority.

This has resulted in a growing number of private training providers delivering national qualifications as well as competition with public institutions.

The distinction between private and public institutions is becoming less clear for the community.

Training markets in Regional Areas tend to be less developed, requiring more government intervention to develop markets and ensure training delivery. Innovations in Distance Learning, using a range of technologies and mobile training have proven effective. There is an increase in internet web based learning in Developed Countries and in some Developing Countries.

These changes and innovations present both problems and opportunities for VET administrators. Problems encountered in skills development, the role of industry, the relationship between general and vocational education and VET and Higher Education are common to many countries.

The opportunities that will be presented through the introduction of lifetime learning will consolidate the role of VET in providing training for employment and creating a better society.

Box 31

The Changing VET Marketplace

- An increasing proportion of VET funding being allocated through tender, with increased competition between private and public institutions
- Public and private VET institutions are changing from non commercial to entrepreneurial organisations
- An increase in the growth of small businesses (SME’s) presenting a challenge to VET in designing and delivering services to this sector
- Trainees are approaching learning through the self assembly of smaller, short term (modules), targeted sections of learning
- With the development of competitive training markets government is encouraging trainee user choice, moving some funding to the private training sector
- More effective labour market research is needed to determine trainees and employees skills needs. The rapid rate of change has necessitated more effective research
- A continuing and changing demand for particular training to service declining and emerging needs in industry and the community.

Adapted from META Analysis – The Australian VET System, ANTA 2003
Quality Assurance in VET

There has been an increase in discussions of measures concerning quality assurance. Some countries have national quality systems in place with internal and external regulatory processes.

Training institutions in other countries continue to pursue ISO 9001 certification to indicate their “capacity for quality”.

To accommodate the measurement of long-term social goals “education monitoring” has developed in recent times, aimed at systematically linking planning, analysis and control.

See Manual Quality D5 Page 136

Implications for Human Resources/Staffing

A changing operational environment for VET institutions, including technological change and reductions in public funding has resulted in staffing changes.

Recent trends:

- Flatter management structures and a reduction in full time staff
- An increase in part-time staff, casual, contract workers, assessors and trainers in general education schools and in workplaces
- An increase in women trainers, reflecting a change from male dominated manufacturing and related industries to service industries eg. information technology, tourism, community services, finance.

In Australia over 50% of VET trainers are women, who want flexible arrangements and childcare

- Senior management staff need business management, change management, strategic leadership and human resource management skills
- The proportion of trainers with formal qualifications is dropping, a non degree qualification being the minimum, with a trend towards lower qualifications, an increase in importance on related, recent industry experience
- More administrative responsibilities for training staff
- Trainers required to deliver flexible learning through training packages with a shift from centrally developed curriculum to teacher developed learning strategies
- The responsibility for trainer training shifting to the employee, generally VET trainers fund their own training.
ADDENDUM 9

DELIVERING DISTANCE LEARNING USING WEB-BASED TECHNOLOGIES

7 Tips for Successful Online Learning

Overview
The use of Internet based technologies continues to grow as a facility for communication and for the delivery of information. Materials that are developed for delivery via the Internet can also be delivered on CD-ROM or in part, via print, audio and video cassette.

By producing Internet-based materials that address both low and high-level technology access, the training resources can reach a wider audience. Using low-level technology initially for delivery also allows time to develop the skills and knowledge needed, while acquiring the infrastructure, for high-technology delivery via the Internet.

It must be pointed out that the eLearning model suggested here is aimed at organisations making a gradual conversion from traditional methods of delivery. Most eLearning models are learner centred and entail a different approach to documented instructional design methodologies.

1. The eLearning survey

Before considering the delivery of Distance Learning programs via web-based technologies a survey of the targeted regions needs to be performed in order to acquire data that answers the following questions:

- What is the existing and desired technological infrastructure?
- What is the industry demand and potential for implementing the infrastructure?
- What are the existing skills and educational levels in Information and Communications Technology?

The data determines an entry point for development of both the delivery systems and the type of courseware that can be developed and delivered successfully at any given stage of the eLearning delivery model.

The data acquired also has specific bearing on:

1. Obtaining support for an eLearning model.
2. Itemising and determining the start up costs.
3. Identifying ongoing cost-benefits.
4. Identifying the funding and financing arrangements that will be needed.

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1. See list at the end of Manual Section D, Costing and Pricing Distance Learning Projects: Recommended Readings – eLearning Models.
2. See Costing and Pricing Distance Learning Projects – 2. Obtain support for a DL program
2. Establishing the objectives of your eLearning Model

2.1 Engaging students in an online system

The level of student engagement in the training program where the student has achieved competency in the learning outcomes, is the measure of the program’s successful delivery. The eLearning model introduces factors over and above those already discussed for Distance Learning.

There is even greater expectation for learners to be resourceful – not only self-motivated but they must also negotiate complex tools which may be new or unfamiliar (ie. computers, software, processes). Trainers will not have the advantage of ‘seeing’ students who are experiencing difficulty or being distracted. The instructional designer must anticipate these and other blocks that are part of the learning experience.

Ideally the first person the student engages with is the trainer who takes the important initial role of mentor and guides them into the eLearning environment. They establish a pattern of personal, as opposed to anonymous, online communication with the student from the outset (ie. enrolment process). This will help students engage in a simulated social learning environment – chat room lectures, video conferencing (synchronous activities), and online tutorial groups via forums and mail lists (asynchronous activities).

Social learning environments are good places to clarify outcomes and answer questions, and provide group feedback etc. This must be structured in a way that is simple and quick to digest so as to avoid distractions and the very real possibility of disadvantaging those who are slower at communicating.

2.2 Can all training be delivered electronically?

It is not always feasible to deliver an entire Distance Learning program by electronic means. Even when access to computers, and/or Internet technologies is available some elements of the training package are best delivered in a face-to-face environment when the costs outweigh the benefits. To offset the costs involved in providing classroom training in remote areas and to maximise the delivery of training, the delivery of resources can be staged in three phases – pre-classroom, classroom, post-classroom (see Manual Table12). The advantage of delivering electronic resources in the first and third stage can be summed up this way: develop once, deliver many times.

The resources fall roughly into three categories: tasks, readings* and assignments. The pre-classroom resources are typically readings but they should also include tasks and assignments to ensure a high rate of engagement.

* Note that ‘readings’ refers to any digital resource: text, video, audio, animated models, interactive simulations etc.

3. See Manual Section D3, Glossary – Trainer, Mentor and Tutor
Table 14  Three-phase eLearning delivery model

<table>
<thead>
<tr>
<th>Pre-classroom</th>
<th>Classroom</th>
<th>Post-classroom</th>
</tr>
</thead>
<tbody>
<tr>
<td>This phase prepares students regardless of their prior knowledge and skills to enter the Classroom phase at similar levels of readiness.</td>
<td>Students enter scheduled classroom sessions when they are ready. Sessions are focussed on presenting those learning components that cannot be delivered effectively through self-paced online delivery methods. Use of video conferencing and Internet chat rooms can be used for some topics but the cost-benefit comparisons are not conclusive.</td>
<td>Subscription to this phase should be encouraged as it fulfils an important role in monitoring the effectiveness of the training program. It also ensures a completion for students and leads into advanced studies. This phase is an integral part of the ‘just-in-time’ training for professional development services.</td>
</tr>
</tbody>
</table>

2.3 Identifying the right delivery media and medium for content

The instructional design of each training program will differ because of its content and the target audience (see Toolkit Section D, Item 1). Consider the different learning modalities and learner types.

A considerable amount of the learning resource material can be delivered in passive format however it is important to intersperse readings with dynamic or interactive content. Weigh up the costs of developing rich media/interactive content compared to passive text, audio and video materials.

Create useful blocks of information

Student engagement will suffer if there is too much or too little information.

- Identify the essential knowledge and skill components needed to achieve competency and separate this from the underpinning knowledge and skills
- Allow students to choose the level of information they require and give them easy access to additional information that supports their learning
- Identify important elements that may need repetition throughout the training.

4. See Glossary Toolkit Section D, Distance Learning – Learning Modalities, Learner Types
Box 32

A simple example of a distance learning program that has been re-structured for web-based delivery.

Distance Learning objective:

Provide two hours per day (five days a week) of basic instruction in animal husbandry based on the national curriculum to 250 students who have previously been unable to attend traditional programs.

Evaluation criteria for conversion to an eLearning Model:

The minimum cost-effective target audience ratio can be met (access to computers that support online/offline viewing of web-based resources; skills, support infrastructure). The eLearning resources will continue to be of value for future on campus or distance learning enrolments, as well as the just-in-time training demands of industry.

eLearning - Instructional design objectives:

To develop a set of Learning Program resources that can be delivered in 3 stages via web-based technologies for online/offline viewing, and face-to-face (or simulated) instruction. The resources are designed for self-paced learning and user initiated assessment.

Stage 1 (pre-classroom) resources comprise program outline, learning outcomes, assessment criteria, and guidelines for study including user support information in a printable format. Study materials include readings and assignments in a variety of text/media types. User initiated assessment indicate readiness for Stage 2 practical work.

Stage 2 (classroom, on-job, or simulated) resources comprise various learning resources that enhance practical work and assess student progress/learning outcomes.

Stage 3 (post-classroom) resources comprise access to Stage 1 resources, additional readings as required, and possible subscription to mentor program.
The table below shows various data types (text, images, audio etc.) and the ways in which information can be published or delivered. In planning the content of a training program it is important to know the various methods of document production required for effective delivery via the different mediums. For instance print media requires high-resolution images. These can be converted to quick displaying (small file size), low-resolution images that are suitable for Internet delivery, but not vice-versa. The same is true for audio files.

### Table 15  Delivery and Publishing of Data

<table>
<thead>
<tr>
<th>media / medium</th>
<th>Print/Audio/Video</th>
<th>CD-ROM</th>
<th>Internet</th>
</tr>
</thead>
<tbody>
<tr>
<td>Text</td>
<td>Produced electronically and printed.</td>
<td>Produced electronically and published in digital format. Can be printed or viewed on computer. Hyperlinks can be used. <em>(See file types)</em></td>
<td></td>
</tr>
<tr>
<td>Still images</td>
<td>Same as for text.</td>
<td>Same as for text. <em>(See image file types)</em></td>
<td></td>
</tr>
<tr>
<td>Audio</td>
<td>Produced electronically and published on analogue or digital audio cassette.</td>
<td>Produced electronically suitable for Internet-based delivery. <em>(See audio file types)</em></td>
<td></td>
</tr>
<tr>
<td>Non-interactive video or animation</td>
<td>Produced electronically and published on video cassette or DVD.</td>
<td>Suitable for complex multi-media or simplified for Internet-based delivery. <em>(See video file types)</em></td>
<td>Produced electronically suitable for Internet-based delivery. <em>(See video file types)</em></td>
</tr>
<tr>
<td>Interactive animation <em>(models/simulations)</em></td>
<td></td>
<td>Suitable for complex multi-media or simplified for Internet-based delivery. <em>(See video file types)</em></td>
<td>Produced electronically suitable for Internet-based delivery. <em>(See video file types)</em></td>
</tr>
<tr>
<td>Administrative information gathering <em>(database)</em></td>
<td>Data can be printed.</td>
<td>Data can be published in digital format and printed or viewed on computer.</td>
<td>Data is gathered, verified and added or edited online. Specified data can be viewed online.</td>
</tr>
</tbody>
</table>

### 2.4 Monitoring and mentoring eLearners

Monitoring and mentoring students is a process that begins in enrolment and continues throughout their participation in the program. It can be achieved through automatic tracking of the students’ access to learning materials and also by providing a means for students to connect with mentors, tutors or trainers on a regular basis (online lectures, tutorials, email correspondence, etc.)

Synchronous and asynchronous methods of communication need to be given a high priority. The primary purpose is to facilitate positive feedback from the tutor to the student (ie. acknowledging the student’s participation in the program) and strengthen student engagement.
3. Developing a web-based delivery system

3.1 Technical Considerations

The eLearning platform or Learning Management System (LMS) is the engine that delivers the training (content) and administrative resources and tools. A consideration at the outset should be whether you will build and host your own eLearning platform or whether you will buy a licensed LMS software/hosting package.

Some key aspects that guide the development of an eLearning platform are:

- Identifying the program objectives for the individual learners, training administrators, and sponsoring organisation
- Defining how a student’s progress will be measured, tracked, and reported
- Determining what learning content will be required for each learner, now and in the future
- Identifying the support tools (labs, references, collaboration, etc.) that will be required by the learners
- Identifying the support tools required by the trainers and administrators
- Identifying which existing and new components of the Training Organisation are to be integrated
- Ensuring the platform is compliant with common and emerging industry standards ie. Sharable Content Object Reference Model (SCORM) - a set of technical specifications that enable sharable, durable, and reusable Web-based learning content
- Is the platform secure?

3.2 Content management system

It is expedient in the longer term for all learning data to be stored as logical chunks of information in a database. Relationships are built that connect relevant data types. In this way the individual text chunks, audio and video items etc. can be reutilised in different training resources and delivered in a variety of formats.

It is also common for electronic training resources to be developed as a complete lesson files. This is easier for individual instructional designers and trainers to develop but increases the amount of time spent updating and reusing information.

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3.3 Administration and student enrolment system

Existing administrative systems, and non-electronic/non-interactive methods can be employed to service the record keeping aspects of delivering training. However, the development of database systems to manage the administrative data standardises the way data is gathered, stored and used. It greatly reduces the amount of manual data processing while extending the usefulness of the data collected for statistical purposes. Students and trainers can be given online access to add and edit specified areas of their own data without compromising the integrity of the data or the data system.

3.4 Staffing Requirements

The ideal **Instructional Design** team are familiar with VET training and services as well as having some experience in the development of Online Learning resources. They work with both a Web Programmer and Web Designer. Liaison with local ISP providers will also be required.

The **Web Design** team is responsible for the design and development of the User Interface (the visual look and logical flow of the content). They convey what functions are required to accommodate this design to the Web Programmer. A web design team must have basic graphic design skills and be a competent computer user with experience in both Apple Mac-OS and Windows-XP operating environments. Knowledge and skills required are HTML-4, XHTML, CSS. Expertise with web development software such as Dreamweaver or Cold Fusion plus experience in educational development would be a distinct advantage. At least one team member with advanced graphic design skills using one or more of the following suggested software packages would be highly desirable: Photoshop, Fireworks, Flash, Quicktime Pro, Dreamweaver.

The **Web Programming** team is responsible for the design of the Site Architecture (functional behaviour). They are capable of building, modifying and maintaining a content management system. A web programmer must have extensive experience in UNIX, Linux, PHP, MySQL, XML, HTML-4, XHTML, CSS, Java, and Javascript. Knowledge and skills in Database Management plus familiarity with both Apple Mac-OS and Windows-XP operating environments are required. A technical background in computing with educational development experience would be a distinct advantage. Ability of at least one team member to develop ‘action-script’ for animation software (ie. Flash) is also desirable.
### 3.5 Development of system and resources – Equipment

A development server and workstations for staff will be needed. The development team will determine the specifications for server hardware, peripherals and software they require in accordance with the standards and availability of the technology they wish to work with.

The major components of an integrated computer workstation – CPU, monitor, printer, scanner, digital camera, CD-ROM drive, portable storage devices, and a GUI (graphical user interface) based operating system. Software suitable for the development of Internet based resources is essential (ie. Macromedia Studio MX). Access to software that performs word processing, digital imaging and capture, spreadsheet and database functions and is either cross-platform or utilises various common file saving formats is also a high priority.

**Table 16**  
List of Inputs for development of eLearning infrastructure.

<table>
<thead>
<tr>
<th>Task</th>
<th>Staffing / skills</th>
<th>Equipment / Time</th>
<th>$ *</th>
</tr>
</thead>
<tbody>
<tr>
<td>Training of staff to meet technical skill/knowledge requirements.</td>
<td><strong>Technical Team</strong> - Web development programming and design skills are required to specified levels (<em>Refer 3.4</em>).</td>
<td>Time: From 3 to 6 months concurrent with training for DL content development.</td>
<td></td>
</tr>
</tbody>
</table>
| Design and develop content management system (*Refer 3.2*) | **eLearning Team** (Instructional designer in liaison with Technical Team). (*Refer 3.4*). | Equipment: Development server – $3000  
One workstation for each member of the eLearning Team – $1500  
Network hardware, back-up power supply, back-up data storage system – from $4000  
Basic peripherals – from $1000  
Software – from $3000 (*Refer 3.5*). |     |
|                                           |                                          | **Time**: 3 to 6 months. Allow time for research and development of prototypes. |     |
| Design and develop Administration and student enrolment system (*Refer 3.3*) | eLearning Team, VET coordinator. | As above. |     |

* Costs quoted in Australian Dollars ie $1 = approximately US$0.70
3.6 Development of Program Curriculum content

Table 17  List of Inputs/Outputs for development and delivery of DL resources using an eLearning model.

<table>
<thead>
<tr>
<th>Task</th>
<th>Staffing / skills</th>
<th>Equipment:</th>
<th>Output / Equipment / Time</th>
<th>$ *</th>
</tr>
</thead>
</table>
| Training of staff to meet requirements for eLearning content development. | Instructional designer, web programmer and digital/web designer require specific knowledge of eLearning methods and technologies. (Refer 3.4). | One workstation for each member of the eLearning Team – $1500  
Scanner, printer, digital camera and other peripherals – from $1500  
Software – from $3000 (Refer 3.5). | Time: From 3 to 6 months concurrent with training for eLearning Infrastructure technical skill/knowledge requirements.  
Additional time may be needed for research and development of prototypes. | $1500; 1500-3000; 3000; 3000-6000; 6000-9000 |
| Design survey – define data required. (Refer Key Steps: 1, 12, 13.) | VET coordinator in charge of finance, eLearning Team. (Instructional designer in liaison with Technical Team. Require knowledge of eLearning development and delivery systems. | Output: Survey questions | | |
| Conduct survey and collate survey results | | Output: Survey data - required (Refer Key Steps: 2, 3, 8, 9, 10.) | | |
| Identify and develop Learning Program resources for online/offline viewing. | eLearning Team. | Equipment:  
As itemised in Staff Development phase  
Also output devices and storage media for delivery of resources for offline viewing (print, CD-ROM, video/DVD, audio cassette).  
Output: Various text/media types (Refer Fig. 3) | | |

* Costs quoted in Australian Dollars ie $1 = approximately US$0.70.

3.7 Support services for students and trainers

Although it is expected that eLearners and trainers will have core Information and Communication Technology (ICT) skills, it is important to provide quality technical support service to ensure the success of the program. It may be useful to note that participants will fall into two basic categories: those that will accept the inherent limitations with current technologies and those that allow limitations to become obstacles to learning and using the system.
7 TIPS FOR SUCCESSFUL ONLINE LEARNING

“Online learning, has had a checkered history since it was first implemented in the PLATO system over 40 years ago. A lot of hype and many dollars have been expended on its virtues yet finally we are starting to see tangible returns. Still many individuals and organisations wade into online learning with both eyes shut. Thinking “this can’t be that hard” they embark on a journey that not all of them finish and even fewer complete to their satisfaction. Why? Because online learning is more than playing with computers. Online learning is about a balanced mix of business, purpose, technology and people. Get the mix right and you will have a great program. Get one or more of these elements either too light or heavy and you will have (often) expensive failure.

Since more organisations are choosing to develop their own material I have provided some tips and outlined some areas to keep an eye on when considering the development and implementation of online learning in your organisation.

Information does not equate to learning. Working with an instructional designer experienced in online development, not just print, will vastly improve the uptake and success of your online learning program. More resources, activities and interactions and less text is the key to providing stimulating and engaging content and a program which achieves learning and business outcomes. Also consider a framework for your original material such as ‘learning objects’. These portable and re-usable containers of learning material and activities are revolutionising the industry by reducing costs and improving consistency and quality of the materials.

**TIP 1  Don’t over design**

Paying developers a small fortune to recreate the already rich human interface design of a web browser in Flash is a waste of everyone’s time and money. Keep the Flash for when you really need it. That is animation, interactions and formative assessments etc. Effective learning environments can be designed in just HTML or using any of the numerous scripting language/database combinations to provide fast, responsive or even personalised interfaces and content. Choosing the appropriate technology/medium for the environment is a critical factor for success.

**TIP 2  Use collaborative technology**

A little effort right at the outset of your development to set up an easy to use environment for your developers will pay many dividends. Redbean uses the WebDAV features of Mac OS X Server to allow contributors to work continuously and remotely on their material if necessary. Both Linus and Windows support this standard for sharing files and resources. Collaborative development ensures all material is synchronised, development times are vastly improved and maintenance simplified, keeping materials fresh and current. Also at this point spend time and effort separating the content, structure and format of your materials and use Web Services such as XML to ‘future-proof” your work.
**TIP 3  Expensive development does not mean better learning**

The ratio of development hours to learning hours can range from 10:1 for simple HTML interfaces right through to 100:1 for intensive media driven materials. Ironically the introduction of more sophisticated tools has increased this ratio, mainly due to developers doing far more sophisticated interactions. Whether these equate to better learning however is debatable. They certainly cost more though! Quite often the most effective learning design can be the simplest.

**TIP 4  Work with a custom developer**

For many organisations, including universities, the skills required in an online learning development team are spread thin or non-existent and so little more than text online is often the result. If you need to go beyond ‘text and talk’ consider working with a Custom Developer to give an objective and refreshing view and who can provide all the skills under one roof. Reduced development time and costs and an innovative product are often the result.

Be sure however that you have your business objectives firmly in place before engaging a developer. The consulting and design processes are not the time to be expanding the scope and the budget. In fact the more you spend on analysis, design and specification before engaging the developer the greater will be your savings in development due to improved clarity of outcomes.

**TIP 5  Beware the learning management system (LMS)**

The average LMS comes loaded with features, for managing students. It also comes loaded with constraints which you probably won’t hit until half through your project. Your choice of LMS will unfortunately define and hence limit your learning design. Some corporate training departments and universities are now re-considering in-house application development as a means to provide a more flexible and innovative learning design. For instance you could develop the content management system and purchase the student management system. Continuing Standards improvement and compliance is allowing the use of more mix and match, plug and play systems. The LMS vendors are also offering more modular applications allowing customers a greater fit to their needs.

**TIP 6  Understand your learning environment**

Learning environments are defined by place, time, method (dominant technology) and purpose. Think of mobile versus deskbound and asynchronous versus real-time solutions.

Learning environments also consist of four different layers of increasing sophistication:

1. Passive.
2. Transaction.
3. Interaction.
4. Simulation.
Passive environments are either print-centric or simple online page-turning systems. This was the first phase of the web and still dominates.

Transaction environments are online and build on the above but now include exchange of data and information via email, file transfer and discussion boards etc. Internet banking is a classic transaction layer application.

The Interaction layer means that the user is now interacting in response to dynamic variables in the learning environment. Tools include collaboration and real-time manipulation. It has three sub-layers of interaction defined as reactive, proactive and mutual adaptation. Most current games interfaces are interactive but only at the reactive to proactive levels.

Simulation means fully immersed and realistic environments. In behavioural and people centred learning the classroom is still the best place for this. In areas where destructive or dangerous outcomes are possible (warfare, pilot training, surgical procedures) computer and tactile simulation environments will be preferred.

The costs of implementing successive layers from 1 – 4 rise exponentially. Full simulation is still very expensive to produce yet costs are coming down.

Further possibilities include the real-time matching of a learner’s profile with a ‘knowledge-pool’ by an adaptive learning engine to provide context sensitive support. The irony is that increasing complexity at the back-end allows increasing simplicity at the front-end for the learner.

**TIP 7 Pamper your people**

This one isn’t a tip, it’s a call for increased investment and diversity of skills in your development team. Online learning can be a rigid and difficult science if dominated by the technologists in your organisation, often leading to a functionally efficient but otherwise dull learning experience. Good online learning is a combination of solid technical capability, learning material of substance and an excellent performance to marry it all together. Working with a learning and development professional can ensure your staff are also getting what they need to write quality programs, design knowledgeable learning interactions and provide superior online teaching practices.

**Summary**

Online learning is here to stay and getting more effective every day. However improved outcomes and improved cost efficiencies are being demanded. The above is just a sample of ways of providing a balanced mix of business, purpose, technology and people which will ensure the success of your online learning project from all perspectives while enhancing your reputation as a provider of quality online learning.”

Some Development Standards bodies:

- www.imsproject.org
- www.adlnet.org
- www.webdav.org
- www.w3c.org

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References


Australian National Training Authority: (ANTA) www.anta.com.au

