Problem Solving Units for the Hospitality Industry

Volume 2: OCCUPATIONAL HEALTH & SAFETY

A project of the Australian Committee on TAFE Curriculum.

Edited by:
Peter Thomson
Jennifer Turker

ADELAIDE 1990
Problem Solving Units for the Hospitality Industry

Volume 2: Occupational Health and Safety

A learning resource containing exercises to develop skills in occupational health and safety for students and trainees in the hospitality industry.

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TAKE NATIONAL CENTRE FOR RESEARCH AND DEVELOPMENT
FOREWORD

This package is a result of work carried out by the TAFE National Centre for Research and Development during 1988-1990 for the Australian Committee on TAFE Curriculum.

The package which is published in 2 volumes contains:

- manual for users of the skills units which includes details of the theoretical framework for the units, and
- 8 skills units containing 95 tasks. These 8 skills units are published in 2 volumes:

  Volume 1: Communication Skills (Skills Units 1-6)
  Volume 2: Occupational Health & Safety (Skills Units 7-8)

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They were compiled and edited by Peter Thomson and Jennifer Turker who also wrote the manual for teachers and trainers.

Our thanks to Penelope Curtin for proof-reading the final document and to Bain Middleton for artwork.
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SKILLS UNITS MANUAL:
A guide for teachers and trainers

PETER THOMSON.
JENNIFER TURKER
INTRODUCTION

This manual is written for teachers and trainers in the Hospitality Industry to explain how to use the skills units for teaching and assessment and to reinforce teaching for the transfer of problem solving skills. It is also designed to help teachers and trainers develop their own problem solving exercises.

The skills units are curriculum materials in the form of problem solving exercises which supplement the teaching of objectives in hospitality courses - particularly those objectives which deal with attitudes.

The two areas covered in these units are:

- Forms of communicating (Volume 1)
- Occupational health and safety (Volume 2).

Each of the 8 units in this resource package is subdivided into topics. Each topic is made up of tasks which require the students to solve a problem related to a course objective on which they have already received instruction.

Each unit then is made up of 4 components:

1. **Cover sheet** (printed on yellow paper) containing:
   - list of topics covered in the unit
   - list of objectives covered in each topic
   - brief notes for teachers/trainers on each task which give:
     - a description of what the students are expected to do in each task
     - list of additional materials/equipment needed (if applicable)
     - suggestions on how to further develop/adapt the tasks (if applicable).
   - list of other related units

2. **The task** (printed on white paper) which looks like this

<table>
<thead>
<tr>
<th>SKILLS UNIT 1: FACTORS AFFECTING COMMUNICATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOPIC: Body Language</td>
</tr>
<tr>
<td>OBJECTIVE: To identify the role played by body language in the communication process</td>
</tr>
</tbody>
</table>

**Task:** 1.2

Name: __________________________
Class/Group: ____________________
3. **Assessment Sheet** (printed on blue paper)

Each task is immediately followed by an assessment sheet giving suggested answers to the problems.

Responses to many tasks will be subjective therefore the answers provided should be seen as a guide. Teachers/trainers will inevitably find other acceptable answers are produced and these should be rewarded as appropriate.

The assessments are provided on separate sheets so that they can be handed out after the students have completed the task.

It has been found that useful discussion can be generated by the assessment sheets to further reinforce the learning process.

4. **Standards** (printed on yellow paper)

Standards for all the tasks are listed at the end of each unit. These standards are on a three point scale:

- credit
- pass
- not yet achieved.

These are to be used as a guide to how well the student performed. Factors to be considered when applying the standards are:

- ability level of the students;
- conditions under which the task is done;
- level of difficulty of the task.

Note: When additional answers are incorporated into the assessment sheets, a modification to the grading will usually be required.

The critical requirement when applying standards is the quality of the answers.
RELATIONSHIP BETWEEN SKILLS UNITS, TOPICS, OBJECTIVES, TAKS AND ASSESSMENT

For example in Skills Unit 1, the relationship is as follows:

```
+------------------+
| SKILLS UNIT 1    |
|                  |
| TOPIC            |
| OBJ'VE           |
+------------------+
| TASK             |
| 1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8 1.9 1.10 1.11 1.12 1.13 1.14 |
+------------------+
| ASSESSMENT       |
| 1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8 1.9 1.10 1.11 1.12 1.13 1.14 |
```
## OBJECTIVES COVERED IN THE SKILLS UNITS

### A - COMMUNICATION SKILLS (VOLUME 1)

<table>
<thead>
<tr>
<th>SKILLS UNIT 1: FACTORS AFFECTING COMMUNICATION</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>TOPIC</strong></td>
</tr>
<tr>
<td>Body Language</td>
</tr>
<tr>
<td></td>
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<td>Perception</td>
</tr>
<tr>
<td>Observation Skills</td>
</tr>
<tr>
<td>Communication Breakdown</td>
</tr>
</tbody>
</table>

### SKILLS UNIT 2: COMMUNICATING WITH CUSTOMERS

<table>
<thead>
<tr>
<th><strong>TOPIC</strong></th>
<th><strong>OBJECTIVE</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Handling Complaints and Disagreements</td>
<td>to recognise effective ways to overcome customers' complaints and disagreements</td>
</tr>
<tr>
<td>Customer Relations and Sales</td>
<td>to identify effective ways to communicate with customers</td>
</tr>
<tr>
<td>Selling Skills</td>
<td>to identify factors that influence a tourist's needs and expectations as customers</td>
</tr>
<tr>
<td></td>
<td>to identify factors imposing constraints on menu planning</td>
</tr>
<tr>
<td></td>
<td>to identify factors involved in planning a function</td>
</tr>
<tr>
<td></td>
<td>to evaluate critically the suitability of planned menus.</td>
</tr>
<tr>
<td></td>
<td>to recognise the features of the language of promoting or selling a product/service</td>
</tr>
<tr>
<td></td>
<td>to produce effective responses to customers when promoting or selling a product/service</td>
</tr>
<tr>
<td></td>
<td>to demonstrate an ability to use language effectively to promote or sell a product/service</td>
</tr>
</tbody>
</table>
## SKILLS UNIT 3: COMMUNICATING IN THE WORKPLACE

<table>
<thead>
<tr>
<th>Category</th>
<th>Skills</th>
</tr>
</thead>
</table>
| **Telephone Skills**      | - to locate specific telephone numbers from domestic and commercial directories  
                           | - to identify factors that lead to effective telephone communication  
                           | - to summarise and analyse a message given over the telephone  
                           | - to demonstrate skills in using the telephone  
| **Requests and Orders**   | - to distinguish between requests and orders as specific types or oral communication  
                           | - to identify factors involved in communicating requests and orders  
                           | - to choose language and tactics appropriate to giving requests and orders  
| **Instructions**          | - to identify factors involved in giving instructions  
                           | - to prepare and give instructions and note feedback  
                           | - to identify the most appropriate way of communicating in a given situation  
| **Business Letters**      | - to summarise written requests and outline actions necessary to meet requests  
                           | - to demonstrate skills in writing business letters  

## SKILLS UNIT 4: COMMUNICATING AT MEETINGS

<table>
<thead>
<tr>
<th>Category</th>
<th>Skills</th>
</tr>
</thead>
</table>
| **Language of Meetings**    | - to recognise how to use language effectively to direct and control meetings  
| **Leadership style**        | - to identify the role and responsibilities of different types of leaders  
| **Format of Meetings**      | - to identify when different meeting styles are appropriate  
                           | - to analyse the effectiveness of a formal meeting  
| **Group Problem Solving**   | - to appraise the usefulness of brainstorming and nominal group techniques  
| **Techniques**              | - to appraise the usefulness of brainstorming and nominal group techniques  

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<th>SKILLS UNIT 5: TALKS AND INTERVIEWS</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Short Talks</td>
<td>to prepare and deliver short 1 - 2 minute talks</td>
</tr>
<tr>
<td></td>
<td>to prepare and deliver a 5 minute talk</td>
</tr>
<tr>
<td>Preparing for Interviews</td>
<td>to recognise correct responses to be made in an interview situation</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SKILLS UNIT 6: COMPUTERS AND COMMUNICATION</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Uses of Computers</td>
<td>to recognise appropriate uses of computers when communicating with guests</td>
</tr>
<tr>
<td></td>
<td>to recognise appropriate uses of computers in management</td>
</tr>
<tr>
<td>Impact of Computers</td>
<td>to identify changes that have resulted from the impact of computer technology in the hospitality industry</td>
</tr>
</tbody>
</table>

| B - OCCUPATIONAL HEALTH & SAFETY (OH&S) (VOLUME 2) |                                                                 |

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<tr>
<td>Safe Working Environments</td>
<td>to identify factors that make a work environment safe</td>
</tr>
<tr>
<td></td>
<td>to identify unsafe conditions in the workplace and to suggest solutions</td>
</tr>
<tr>
<td>Background Research</td>
<td>to identify organisations/people that can give advice on OH&amp;S issues in the workplace</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SKILLS UNIT 8: OCCUPATIONAL HEALTH AND SAFETY ISSUES</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Manual Handling</td>
<td>to analyse the causes of accidents involving heavy loads and to suggest prevention measures</td>
</tr>
<tr>
<td></td>
<td>to identify factors that lead to back injury in the workplace</td>
</tr>
<tr>
<td></td>
<td>to identify procedures for dealing with compensation and rehabilitation as a result of back injury in the workplace</td>
</tr>
<tr>
<td>Pollutants</td>
<td>to recognise how to deal with OH&amp;S problems caused by asbestos</td>
</tr>
<tr>
<td></td>
<td>to recognise the effects of common pollutants and stress in the workplace</td>
</tr>
<tr>
<td>Emergency Procedures</td>
<td>to identify first aid procedure for dealing with emergencies</td>
</tr>
<tr>
<td></td>
<td>to analyse causes of accidents in the workplace and to suggest prevention measures</td>
</tr>
</tbody>
</table>
to list the action to be taken in an emergency involving fire in the workplace.
TEACHING FROM THE UNITS

The teacher/trainer can choose either to

- select individual tasks that most closely relate to the objective being taught; or
- work through all the tasks for each objective.

The tasks offer the teacher/trainer practical exercises to use when teaching a certain topic. However, the tasks are not to be regarded as all-encompassing. Achievement of the objective will only be accomplished by:

- presenting and teaching the topic;
- using these tasks to reinforce learning;
- developing further tasks using these tasks as a guide/model;
- referring to, and making use of the students' own experience whenever applicable/appropriate.

Sometimes, rather than being used to follow-up other teaching, a unit might be used as a starting point for learning. For example, some of the material on Handling Customer Complaints (Tasks 2.1-2.3) could provide a useful introduction to that topic. In addition, teachers will be aware that assessments in areas such as customer relations have a strong element of subjectivity since personal judgements must be made. In these units, the tasks are often designed to be used in group discussion or as material for use by the whole class. There is a greater emphasis on teaching than on assessment in these cases.

Although teachers and trainers will find it possible to make some assessment of individual students when using this type of unit, their greater value will be in stimulating problem-solving abilities.

It is important to note that the wording of the objectives around which a unit is based will probably not correspond exactly with the wording of objectives used by individual teachers and trainers. This is because the objectives have been selected from different Hospitality courses in an attempt to make them generally applicable around the country. Before using particular units, teachers and trainers need to assure themselves that the objectives are similar to ones from their programs.

For example, before using tasks from Skills Unit 2: Communicating with Customers, it is important to recognise that at least some objectives similar to those listed on page 4 have already been taught.

Self-assessment

Another use of the units is for self-assessment. Students can do the units as individual or group exercises and then score their own performance.

This allows the units to be used as assignments and homework exercises which can enrich the teaching and learning processes.
HOW TO REINFORCE TEACHING FOR THE TRANSFER OF PROBLEM SOLVING SKILLS

The great value of teaching which is directed towards skill transfer is that it reduces the time needed to learn tasks in new, although similar situations. However, possession of a skill does not eliminate the need for training or practice when there are changes to the conditions under which that skill must be performed. When an employee moves to a new job requiring somewhat different skills, a period of training and familiarization is necessary. The amount of skill that is transferred to the new situation determines the length of that period.

In the paper describing the theoretical underpinnings of the Skills Units (reproduced as an Appendix to this manual), some of the uncertainties about skill transfer have been identified. For the purposes of this section it is sufficient to restate the principle that has guided our work: namely, the transfer of problem solving abilities from one area or discipline to another is unlikely unless teachers:

- give sufficient practice in the relevant tasks; and
- focus on, and reinforce the idea of transfer whenever they see a potential occurrence.

When teaching the skills associated with a particular objective it is also important to use different approaches to ensure that the skills being taught can be used in contexts or situations different from those in which they are first encountered.

The Skills Units, as well as providing additional practice, offer a way of avoiding the focused approach by introducing the students to new situations.

The other important role for the teacher and trainer is that of repeatedly drawing skill transfer experiences to the attention of their students. Much of this can be done in individual or group discussion sessions in which the students are asked to relate their own experiences to provide examples of problem solving relevant to the teaching situation. One good test that can show skill transfer is occurring is for the students to be able to recognise and relate examples from their personal experience. This then confirms that skills transfer has taken place.

Teachers and trainers need to give explicit instruction about the evidence of transfer whenever possible.
DEVELOPING MORE PROBLEM SOLVING EXERCISES

The package of Skills Units that has been developed covers problem solving exercises in two areas - forms of communicating and health and safety issues. The need for materials covering these areas was identified by many teachers and trainers with whom the project was discussed. However, it would be possible to expand on the topics already covered as well as writing new units to cover any area of the course.

Extending existing exercises

The extension of the package of skills units can take three forms:

1. Teachers/trainers can simply provide more of the same, for example, in Telephone Skills (Unit 3) the exercise with the phone book (Task 3.1) can be varied many times over.

2. Certain tasks will lend themselves to further development based on teaching conditions. For example, in Unit 5, Talks and Interviews, teachers/trainers can use current job advertisements from the local newspapers which relate directly to student's course of study to develop a task similar to 5.4.

3. Teachers/trainers may ask students to describe situations from their own work/life experience and use these as a basis for discussion and problem solving activities. For example, in Handling Customer Complaints (Unit 2) task 2.3 can be further developed by asking students to describe any incidents of customer discomfort they have experienced and then asking the class/group to suggest ways of dealing with the incident.

New exercises

The number of new exercises that can be written is only limited by the ingenuity of the teachers and trainers and the time at their disposal. The experience of teaching the objectives of a course will inevitably present a range of ideas that can be developed.

New exercises should be developed using existing tasks as models. Before using them with students it is wise to have a colleague read and comment upon the suitability of the new material.

New exercises and further development of existing exercises is an integral part of teaching for skills transfer. Not only is it critical to expose the students to as many opportunities for teaching the particular problem solving skill as possible, but it is also critical for those students who fail to pass the standard and score in the 'not yet achieved' range. If a student is scoring at this level the teachers/trainers should consider:

- teaching the material again
- developing a different approach to the teaching of the material
- developing similar tasks to assess whether learning has taken place.
PROBLEM SOLVING AND THE TRANSFER OF SKILLS

A reference for teachers/trainers which explains the theoretical framework of the Skills Units.
PROBLEM SOLVING AND THE TRANSFER OF SKILLS

THE GETTING OF WISDOM

This is the story of a TAFE National Centre curriculum project which has developed a series of problem solving exercises called Skills Units for use by teachers, supervisors, students and trainees in the Hospitality Industry.

The Skills Units trace their origins to work done for TAFE in Victoria which aimed to develop methods for teaching transferable skills (Thomson & Murphy 1987, Thomson & Storey 1988). The Victorian interest in transferable skills stemmed from a Canadian study which had described what were called 'generic' skills or skills identified as 'transferable' across a number of occupations (Kawula & Smith, 1975).

Put simply, the Victorian projects were designed to define a set of skills applicable across a range of occupations and come up with an effective method for teaching those skills. It was anticipated that this would lead to the teaching of a common core of skills that TAFE students would learn irrespective of which occupation they planned to enter after their initial training. The skills they learned would be transferable in varying degrees across a range of new situations. For example, the skills involved in driving a car; once learned, should transfer to make learning to drive a truck fairly easy.

With the benefit of almost four years hindsight the relatively blinkered approach of the first year's work becomes rather obvious. Our search for methods and understanding was almost entirely confined to the vocational education literature. Consequently we missed out on the interesting work on the teaching of thinking skills being done in other areas. But, again with hindsight, we also wonder why we did not realise that the transfer from driving cars to trucks was, in fact, not easy. And, if the Canadian work on which ours was based was so promising, why had it not made a greater impact? Why were there no more reports coming out of Canada?

The second of the Victorian projects (Thomson & Storey 1988) took on the task of implementing the teaching of transferable skills in the area of Hospitality through the use of teaching modules called Skills Units.

It was during the second project that the warning bells began to sound more loudly. We cautiously reported on the complex nature of skill transfer and drew attention to the fact that even the experts could not agree on how skills are transferred from one task to another. However, a conscious decision was made to avoid becoming too immersed in the theory of skill transfer and to develop something practical for use by teachers and trainers. We were encouraged to do this on the basis of the enthusiastic response given to our draft skills units by teachers and trainers alike.

This pragmatic approach was adopted at a time when the theoretical arguments about the learning and transfer of skills were once again being hotly debated. The debate could not be ignored forever. We found ourselves taking more account of the research literature outside of vocational education as we continued to develop our units. The first consequence of this was the decision to drop the term 'transferable skill' and to use instead the less contentious term 'problem solving skill'. The major reason for the change was the difficulty of demonstrating that skill transfer occurs as a result of using the units. This paper will explore some of the reasons for this difficulty, but its main purpose is to outline the theoretical framework within which the Skills Units have been developed.
PROBLEM SOLVING DEFINED

Problem solving involves providing an answer to a problem by thinking which is focused on making decisions or arriving at a particular point of view.

Problem solving requires the use of 'thinking skills' and these are themselves difficult to define. The definitions offered tend to be related to the background of the people involved. For example, philosophers talk about critical thinking and logical reasoning; psychologists refer to metacognition; cognitive researchers use cognitive strategies and heuristics whilst educators have the terms study skills and problem solving.

Irrespective of the backgrounds of those using the terms, thinking skills have a number of key features; among those identified by Resnick (1987) are the following:

- there is often a need to find a structure in apparent disorder;
- solutions considered tend to be multiple not unique;
- the thinking tends to involve more than one idea and each idea has certain costs and benefits;
- the thinking requires judgements to be made after weighing evidence;
- there is often uncertainty in the solution because not everything is known;
- the thinking requires mental effort; and
- the sequence of thinking does not tend to follow a defined path (such as using a formula to solve a maths problem).

In this paper the multiplicity of terms used to describe 'thinking skills' have been avoided by (somewhat crudely) lumping them together under the term 'problem solving'.

THE LESSONS FROM THE LITERATURE

The reasons for changing from units directed towards teaching transferable skills to those teaching problem solving skills can now be explored in more detail. Before reviewing the literature it should be said that vocational educators share few of the doubts of their more research-oriented colleagues when it comes to skill transfer.

As was pointed out earlier, our initial reading concentrated on the writings of vocational educators. For the most part, these writers were approaching the teaching of transferable skills with a 'how to do it' perspective. There was little questioning of a fundamental and philosophical nature. Nobody seemed to challenge the possibility of teaching for transfer. See for example, Wiant (1970, 1977), Sjogren (1977), Selz & Ashley (1978), Employment and Immigration Canada (1979), Hayes (1981) and Greenan (1983).

Furthermore, the writings of vocational training practitioners over the last two or three years continue in the same vein. Chandler (1988), Florence (1988), and Hind (1988) each report on ways to teach transferable skills.

However, the more academic literature devoted to problem solving skills is notable for the lack of solid research evidence supporting many of the teaching approaches that are advocated by workers in the field. Resnick (1987) has reviewed the evaluations of a number of the better known programs on the market and concludes that:

Only a few programs provide convincing evidence that broadly applicable and integrated abilities have been acquired (p. 47).
Perhaps even more damning, is her belief that the skills acquired on a particular discipline do not seem, for the most part, to transfer to other disciplines or to life outside the classroom or training room. Skills of any sort which are bound to particular disciplines (or particular ways of thinking) that cannot be transferred into the activities of everyday life tend to be of very limited value.

Another notable feature of the literature is that the experts cannot agree on how problem solving skills should be taught. Therefore those who take on the task of developing problem solving teaching materials (as has been done in the TAFE National Centre project) are doing so at their peril. But they are in good company. The range of materials which purport to teach thinking skills of one sort or another is formidable. All of it has been produced in the absence of any consensus from the experts. Nor is this lack of consensus a flash in the pan; debate has raged (if we could ever say anything in education 'rages') for 20 or more years.

There are several factions and sub-factions involved in the debate. At one extreme we have the insistence that general problem solving skills can be taught in a way that makes them applicable in many different settings (De Bono 1985), while at the other is the claim that the idea of a general problem solving ability is meaningless (McPeck 1981). Between the extremes lie many shades of opinion; indeed, the best way to think about expert opinion on problem solving is to see all experts as lying somewhere along a continuum.

In order to find a place for the Skills Units along that continuum, we must first take a closer look at the arguments put up by some of the protagonists. Perkins and Salomon (1989) give an excellent outline of the debate beginning with the work of Polya (1954, 1957) who argued for the teaching of a repertoire of general strategies for solving problems (heuristics). Polya's strategies involved such techniques as breaking the problem up into sub-problems; the use of diagrams to represent the problem in different ways; and first trying to solve simpler problems related to one that had been set. After a period of initial enthusiasm for Polya's work and work of a similar nature, the heuristics approach received a setback in the seventies at the hands of the expert chess player.

Research showed that expert chess players do not think in terms of the general rules of play (sub-problems) involving one piece at a time, but rather in terms of whole board configurations or schemata (Chase & Simon 1973). Following findings of a similar nature in other areas (see for example, Rabinowitz & Glaser 1985) expert performance was seen to require a large knowledge base; furthermore this knowledge had to be specifically related to the field where the expertise was to be demonstrated. Thus, being an expert chess player is one thing; however these skills are unlikely to transfer to other fields such as business tactics or military strategy because the knowledge bases required are different.

After demolishing the case for teaching general problem solving skills independent of any knowledge base, the Perkins and Salomon paper neatly does a turnaround and brings new evidence to bear that revives the generalist position. Some recent research has reported success with a more general approach to teaching problem solving skills (for example, Schoenfeld 1985, Palincser & Brown 1984, Pressley et al. 1987). However the claims of success tend to be guarded and most researchers call attention to the need for further research to resolve various issues. Indeed Ennis (1989), in a separate review of the debate, outlines an elaborate research agenda that he believes must be completed before we have answers to the problem of how students learn 'thinking skills'.

Ennis adds another dimension to the continuum that sees the teaching of problem solving as moving from a highly specific knowledge base to a very general subject-free approach. He does this by identifying two alternative teaching approaches at the knowledge-based end of the continuum. Ennis calls these infusion and immersion. The infusion approach involves relating the problem solving tasks to subject matter that is being, or has been taught. This means the students or trainees are made aware that they are engaged in solving
a problem related to the subject matter, and the strategies they use in arriving at a solution are drawn to their attention and reinforced by the teacher.

On the other hand immersion, although similarly involving the student in problem solving tasks related to subject matter, does so without drawing the strategies used to the attention of the students. The students get deeply immersed in the problem solving processes without the principles of problem solving being made explicit. They learn to solve problems through immersion rather than instruction based on the 'rules' of problem solving.

DEVELOPING THE SKILLS UNIT CONCEPT

As already mentioned, the literature continues to call for more research on the ways students learn to solve problems and on how transfer of such abilities occurs. These calls persist despite the claims of trainers and practitioners such as de Bono who believe they have some if not all the answers.

Our development work on the Skills Units was proceeding at a time of heightened research interest so it was possible to modify our approach to take account of the current research. But, like the practitioners, we were in no position to sit back and await the definitive answer from researchers. Instead we took a position based on the knowledge at our disposal.

The position of the Skills Units in the theoretical framework is towards, but not at, the 'specific knowledge' end of the continuum that was referred to earlier. Our development work has aligned itself with many of the views expressed by Resnick (1987). The approach has been knowledge-based with problem solving skills taught through infusion rather than immersion. Furthermore, teachers and supervisors are encouraged to provide multiple examples of problem solving tasks related to each objective thereby ensuring that students and trainees gain enough practice in dealing with an objective to achieve mastery. (This may require teachers to develop their own units in addition to the ones provided by the project.)

The project materials have been developed with the assumptions that:

- some background knowledge is essential for students before they attempt the problem solving exercises. (The problem solving exercises are based on objectives that have already been taught by the teachers.);
- the transfer of problem solving abilities from one area or discipline to another is unlikely unless teachers:
  - give sufficient practice in the relevant tasks, and
  - focus on, and reinforce the idea of transfer whenever they see the potential for it to occur.

In developing the most appropriate way of presenting the units, two additional considerations involving assessment and standards issues influenced the format of the final product. The assessment element of the units serves two purposes. Firstly, like all assessment, it presents a challenge to the students and trainees which should in turn motivate them to do their best. Secondly, it provides feedback (much of it immediate) to indicate the standard of performance on the tasks.

The establishment of standards has been guided by the knowledge that many people require a period of practice at certain skills before they are fully proficient. For example, a person skilled in the operation of a computer-controlled baking machine would not be expected to operate immediately, with equal proficiency, a similar piece of equipment which came from a different manufacturer. They would, of course, be expected to develop proficiency on the new machine more quickly than a novice but, with different controls and a new set of operating conditions, the level of skill displayed with the original machine would not be
immediately transferable to the new machine. A period of training and familiarisation would be required. The identification of standards for each task in the Skills Units is intended to reflect the gradual nature of the skill learning process.

THE STRUCTURE OF THE SKILLS UNITS

The units have been written for objectives taken from courses in cooking, waiting, pastry cooking and bread-making as well as traineeships and pre-vocational courses in hospitality.

Each unit is made up of tasks which require the student to solve problems related to course objectives on which they have already received instruction. Each task is followed by a separate assessment sheet which gives the suggested answers to the problems. At the back of the unit there is a section which indicates the standard or expected performance on a three point scale - Credit, Pass or Not Yet Achieved - that can be used as a guide to the standard the students or trainees have attained in each task.

The tasks have been developed around topics which aim to reflect the situations students and trainees meet in the workplace. The topics fall into two broad categories: communicating with others, and occupational health and safety.

All the problem solving tasks relate to situations in the hospitality industry. Keeping the materials relevant to the industry is essential in vocational training and has the additional advantage of ensuring the students and trainees maintain interest in the tasks.

Some tasks require the use of fairly routine skills such as evaluating the suitability of a menu. However every attempt was made to include tasks involving less straightforward skills, for example, handling customer complaints. For the most part the tasks dealing with these less straightforward or non-routine skills were those involving attitudes rather than knowledge. The need for more units which dealt with attitudes was stressed by most teachers and supervisors with whom we discussed the materials, so every attempt was made to meet this need.
An example of a task from a skills unit is shown below:

**SKILLS UNIT 3: COMMUNICATING IN THE WORKPLACE**

**TOPIC:** Telephone Skills

**OBJECTIVE:** To summarise and analyse a message given over the telephone

---

**TASK 3.4**

(Note: This task requires a recording on tape of a message. The text of the message is included in The Teacher's Notes at the beginning of this skills unit.)

Assuming you work for Jennie's Dial-a-Pizza, list below the questions you need to ask Lisa when you call her back.

Questions to be asked about Lisa's order:

---

Students listen to the tape and then attempt the problem-solving exercise.

Students list their answers in the space provided.

---

XXV
Suggested answers are to be found on the next page (printed on blue paper)

ASSESSMENT: TASK 3.4

The answer should list the following:
1. Exact number of pizzas
2. Types of pizzas
3. Size of pizzas
4. Day of delivery
5. Address for delivery
6. Time of day - a.m. or p.m.
7. Method of payment (cash or credit card)

(Note: Lisa has already asked for the cost.)

Note: This task requires the students to do more than simply summarise a message. They must also analyse the message and identify the information they need in order to answer the question.

The introduction of the assessment element enables the teacher to discover how well the students have mastered the necessary skills.

The standards for this task are to be found at the end of the unit (printed on yellow paper).

<table>
<thead>
<tr>
<th>TASK 3.4</th>
<th>Identified points 1 to 6</th>
<th>= Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identified points 1 to 5</td>
<td>= Pass</td>
<td></td>
</tr>
<tr>
<td>Identified any 4</td>
<td>= Not yet achieved</td>
<td></td>
</tr>
</tbody>
</table>

As Task 3.4 presently stands it would be viewed as having varying degrees of relevance according to the course the students were doing. For example, few would-be waiters are likely to work at Jennie's Dial-a-Pizza.

Nevertheless the skills involved in telephone communications are among the most important for employees in the hospitality industry. So, although the context of this problem solving exercise could be changed according to the particular jobs the students or trainees were doing (or hoping to do), it is not undesirable to have waiters tackling tasks similar to this one because the underlying intention is to aid in the teaching of skills transfer.

The different degrees of relevance of problems are therefore a strength of the units. However there must be some relevance to the particular industry otherwise the students will lose interest.

A further consequence of the units having varying degrees of relevance according to the courses the students/trainees are undertaking is to be found in the three point standard of performance scale. The usefulness of such scales have been explained by Kenyon and Hermann (1987) and Foyster (1990), however their arbitrariness needs to be acknowledged. The units have used the expert judgements of the curriculum developers and people from industry when identifying standards. It may well be that these will need revising after the units have been used for a period of time.
THE FUTURE OF THE SKILLS UNIT APPROACH

In summary, the Skills Units are curriculum materials which:

- are based on the objectives of hospitality subjects and give priority to objectives dealing with attitudes;
- are developed around a problem solving framework which reflects, as closely as possible, real life problems; and
- incorporate assessment procedures which allow the students/trainees (and their teachers and supervisors) to gauge the standard of performance that has been achieved.

The Units are accompanied by a teachers' handbook which explains how to use the problem solving exercises and how to reinforce the idea of teaching for the transfer of problem solving skills. It is also designed to help teachers develop their own exercises.

It is to be hoped that the materials will be the subject of further research and evaluation both in hospitality and other vocational subjects. We have a long way to go before we fully understand how people learn to solve problems and how skills transfer from job to job.

The Skills Units offer a promising means of extending our understanding.

REFERENCES


SKILLS UNIT 7: OCCUPATIONAL HEALTH & SAFETY - GENERAL

TOPICS:

SAFE WORK ENVIRONMENT

GENERAL BACKGROUND RESEARCH

OBJECTIVES:

SAFE WORK ENVIRONMENT

. to identify factors that make a work environment safe (Task 7.1)

. to identify unsafe conditions in the workplace and to suggest solutions (Tasks 7.2, 7.3, 7.4)

GENERAL BACKGROUND RESEARCH

. to identify organisations that can give advice on OH&S issues in the workplace (Task 7.5)
## Task 7.1
Students are given a diagram of a commercial kitchen and asked to identify factors that ensure the workplace is safe to work in.

## Task 7.2
Students are presented with a scenario (Cafe Bouffe) and asked to identify factors that caused the work environment to be unsafe and to consider solutions. This scenario is also used in Task 8.10.

## Task 7.3
Students are presented with a scenario (Flexitex, plastics factory) and are asked to analyse conditions in a factory kitchen and suggest solution to OH&S problems.

## Task 7.4
Students are presented with a scenario (Formcraft Canteen) and asked to identify OH&S issues and the organisations that have an interest in health & safety in the canteen. This scenario is also used in Tasks 7.5 and 8.

## Task 7.5
This task follows on from Task 7.4 and uses the same scenario (Formcraft Canteen). Students are required to locate a person who is in a position to give authoritative advice on OH&S issues in the workplace. It is recommended that this task be delegated to particular students to reduce the demands made on the person contacted. The information gathered may then be shared.

### RELATED SKILLS UNITS
(Skills Unit 8)
TASK 7.1

Consider the situation where you are rebuilding and refurbishing a commercial kitchen and you want to ensure that the kitchen is a safe place for all staff working there.

Using the diagram, list the factors you have to take into account when refurbishing

- floors (list 6 factors)
- walls (list 3 factors)
- windows/lights (list 4 factors)

in order to ensure that the kitchen is a safe place in which to work.
TASK 7.1 (Cont’d)
ASSESSMENT: TASK 7.1

1. Floors must be:
   . non-slip
   . impervious surface
   . easily cleaned
   . resistant to heat
   . resistant to food stains
   . resistant to cleaning agents

2. Walls (and ceilings) must be:
   . light coloured
   . washable
   . non-absorbent

3. Considerations for windows/lights to include:
   . provision of natural light wherever possible (e.g. skylight in roof)
   . use a fluorescent light
   . provision of removable mesh screens on windows
   . lights must be shielded to protect food, utensils and equipment from glass fragments in case the fixture should break.
SKILLS UNIT 7: OCCUPATIONAL HEALTH & SAFETY:
GENERAL

TOPIC: Safe Work Environment
OBJECTIVE: To identify unsafe conditions in the workplace and to suggest solutions

Name: ____________________
Class/Group: ______________

TASK 7.2

THE CAFE BOUFFE

Cafe Bouffe is a small bistro, in two small shops side-by-side. One large space has been made, by an archway in the adjoining wall. The dining room has two areas, each five metres by ten metres. The total seating capacity is 65-70. Cafe Bouffe is popular and therefore busy and usually noisy.

The floor levels in the two sections of the dining room are at slightly different levels. There is a 50 mm step under the archway. A heavy Indian rug has been placed over the step to cover it.

The theme of the Cafe Bouffe is 'sophistication'. The colour scheme is mainly black and the lighting is low. The furniture includes black Thonet cafe chairs, with flared legs.

Although the air conditioner is on constantly when the cafe is full, some areas are still too hot.

Coffee is served from a side table in the dining room because the kitchen is too small.

THE ACCIDENT

Hermoine is working part-time. The cafe is busy. Two people on table 14 have been waiting for 10 minutes for coffee, and look as though they are becoming impatient. Hermoine is hot and flustered.

Hermoine knows that she has to collect the dirty dishes from table 16. She pours the two cups of long black for table 14, but doesn't bother to put them on to one of the special coffee trays. This will leave her hands free to collect the dishes from table 16 on her way back.

As she walks near the archway, Hermoine catches her foot on a chair leg. She tries to regain her balance, but steps on the rug where it covers the step. She looses her balance totally. Coffee cups fly. Coffee spills over a customer and over Hermoine herself. Both suffer minor burns. Hermoine is also bruised on her arms, forehead and legs.
**TASK 7.2 (Cont'd)**

1. List six factors which may have contributed to this accident.

2. The cafe manager wants to change the way coffee is organised. The following method has been suggested.

   i. There is to be a coffee service in both dining rooms.

   ii. Waiters are to take empty cups to the tables.

   iii. Coffee pots with narrow pourers and lids are to be carried to the tables, where cups are to be filled.

   a) What are three advantages of this system over the old one? (list 4)

   b) What problems will there still be with the serving of coffee? (list 4)
**TASK 7.2 (Cont'd)**

3. List three things that can be done the next morning in order to lessen the risk of a similar accident happening again.

________________________________________________________________________

________________________________________________________________________

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________________________________________________________________________

4. The management is considering permanent solutions to the situation.

Give three suggestions for major changes that could be made.

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________
1. The following are all factors which may have contributed to the accident:

   . the change in floor level
   . use of the rug to hide a hazard
     (It would be safer to draw people's attention to it)
   . a loose rug in a high traffic area
   . overcrowding: not enough walking space
   . inadequate lighting
   . too hot and noisy: not enough control over the ventilation
   . Hermoine was taking short cuts, because she was rushing
   . the design of the chair legs

2a) The advantages of this system are:

   . waiters' total walking distance in one room is reduced
   . waiters no longer carry full cups to the tables
   . pots are likely to spill less

2b) The problems with this system are:

   . hot liquid is still being carried in a crowded space
   . it is hard to guarantee that the waiters will always follow procedure
   . a number of causes of the accident are still there
     - restricted walking space
     - furniture legs sticking out
     - inadequate lighting
3. Changes that could be made the next morning:
   - clear walkways
   - remove the loose rug
   - make the step more visible with tape or paint
   - increase the lighting

4. Major changes that could be made:
   - make all the floor the same level through the dining room
   - get chairs where legs don't stick out
   - completely rearrange the tables to improve access
   - improve the air conditioning
SKILLS UNIT 7: OCCUPATIONAL HEALTH & SAFETY:
TOPIC: GENERAL
OBJECTIVE: Safe Work Environment
To identify unsafe conditions in the workplace and to suggest solutions

Name: __________________
Class/Group: ______________

TASK 7.3
FLEXITEX

Flexitex is a plastics factory. The staff kitchen has just been rebuilt. The following is a memo from the Flexitex Occupational Health and Safety Committee, to the management about the kitchen.

You are a newly appointed member of the OH&S Committee. You have been asked your opinion of the memo before it is sent.

Read the memo, then answer the questions below.

TO: J.P. MOORE
FROM: OH&S COMMITTEE
RE: IMPROVING OH&S CONDITIONS IN THE NEW KITCHEN

Further to our memos of 27 February and 14 May, the kitchen staff are dissatisfied with your lack of response to our concerns. Worker safety and health in the new kitchen needs to be improved.

The Union has agreed that unless work is commenced to overcome the problems, industrial action will be considered.

Attached is a list of items, arranged in order of importance.

I look forward to your early response to this.

Joe Slattery
Chairperson, OH&S Committee

LIST OF ITEMS REQUIRING IMPROVEMENT IN THE KITCHEN

a. Smells from the garbage storage; there is a clear threat to workers' health

b. Some workers are reporting muscle strain when handling goods in the dry store. They believe the top two shelves are too high (1850 mm and 2150 mm). They report strain when lifting heavy cartons. It is recommended that a ladder be provided.
c. The floor is slippery around the deep fryer, although there have been no accidents to date.

d. The taps on the boiling water unit are too high (17550 mm) for filling the smaller containers (teapots etc). This is most inconvenient.

e. Shorter workers report that the bench with the electric slicer is too high. They find that using the slicer for more than a few minutes tires their arms and shoulders.

1. Look carefully at each of the problems on the list. Comment on each one, saying if it is a serious problem.
   
a. 
   
   ____________________________________________
   ____________________________________________
   ____________________________________________

   b. 
   
   ____________________________________________
   ____________________________________________
   ____________________________________________

   c. 
   
   ____________________________________________
   ____________________________________________
   ____________________________________________

   d. 
   
   ____________________________________________
   ____________________________________________
   ____________________________________________

   e. 
   
   ____________________________________________
   ____________________________________________
   ____________________________________________
2. Reorganise the items on the list into what you think is a better priority order.

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

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________________________________________________________________________

3. For each of the problems on the list, suggest solutions that the OH&S committee could suggest to management.

________________________________________________________________________

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________________________________________________________________________

________________________________________________________________________

________________________________________________________________________
1. Problem a.

The smell is not a health hazard, but it does need to be attended to.

Problem b.

This is a very real problem, needing attention as there is a risk of injury.
A ladder is not the solution.
Manual handling training is needed.

Problem c.

A very real problem and a safety issue. This requires immediate action.

Problem d.

A real problem which requires immediate attention.

Problem e.

Real but not critical. There is some risk of injury if a particular worker uses a lot of force. Improvement is advisable but not urgent.

2. The new priority order is as follows:

a. the slippery floor by the freezer
b. the boiling water taps
c. the dry storage room high shelves
d. work height of the slicer
e. the garbage smells
3. a) the slippery floor by the freezer
   Increase the cleaning frequency. Adding a non-slip flooring or changing the floor material are additional measures that could be taken.

   b) the boiling water taps
   - add a lower level outlet
   - provide a stand for smaller pots.
   - add another hot water unit at a lower level

   c) the high shelves in the dry store
   - ban the use of the top shelves for storage of heavy things
   - instead store rarely used items there

   d) work height of the slicer
   - it could be set into a lower section of bench

   e) the garbage smells
   - this may be a ventilation problem
   - air monitoring is needed to check that there is not a health risk
SKILLS UNIT 7: OCCUPATIONAL HEALTH & SAFETY:

TOPIC: GENERAL

OBJECTIVE: Safe Work Environment

To identify unsafe conditions in the workplace and to suggest solutions

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Name: ____________________
Class/Group: ______________

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TASK 7.4

THE FORMCRAFT CANTEEN

THE FACTORY

Formcraft Engineering Pty Ltd design and manufacture metal products; gutters, tubing, capping and the like.

THE CANTEEN

The canteen is open all day while the factory is operating. It serves hot and cold meals and snacks. There is seating for about 180 and most days it is more than half full during the busy times.

THE KITCHEN

The kitchen has a work bench in the centre and benches along two sides. There is just enough room for a person to walk through. The floor is tile, and not as clean as it could be.

The kitchen is designed to commercial standards with dishwashers, gas ovens and hot plates and a range of heavy duty electric appliances. There is an electric duct for the removal of fumes, although it is noisy and isn't always adequate for the job. On steamy or warm days the door is opened as well and this usually provides enough ventilation.

THE SERVING AREA

The food, trays of sandwiches and pies and pots of soup, are carried from the kitchen through two doors to the counter serving area.

THE MANAGER

The Operations Manager oversees the canteen. He considers it a nuisance. The problems there are time-consuming for not much productivity gain. On top of that the cook is bad tempered. "A private contractor would cost the same and be far less bother."
THE STAFF

There are four full-time employees in the kitchen. Part-time staff come in during the lunch break. The permanent canteen staff are not happy and say that they are overworked. The canteen staff will take the matter up with the area union representative when she visits in a month's time.

The permanent staff are as follows:

Peter, the Cook
Peter has been with Formcraft for nearly 10 years. The changes in the management of the canteen have made his job more difficult. For example, he has refused to fill in forms for maintenance; he has enough to do without more paperwork!

Wayne, Cook's Assistant 1.
The job suits him because the pay is fair and it is close to home. He lost his driver's licence six months ago.

Wayne is prepared to pitch in and work harder when it gets very busy and the pressure is on. But he is a union man and he is unhappy about the gradual increase in workload.

Tony, Cook's Assistant 2.
Tony does not like working at Formcraft. He has been looking around for another job.

Marilyn, Counter Server 1.
Marilyn runs the counter section. There is no official boss in either the kitchen or the serving area, but she has been around the longest, and knows the bosses. When the kitchen staff get upset with the cook's moods, she is the one who calms things down.

Marilyn finds the untidy state of the kitchen difficult to put up with. She has had a number of arguments with Peter about it. His reply is to tell her to look after the counter, he'll look after the kitchen.

The Part-time Staff
Apart from the full-time staff, there are usually two part-time staff who come in to cover the lunch period. The turnover in part-time staff has been high.

1. List at least five occupational health and safety issues that are apparent in the Formcraft situation. List the specific issues under the following headings:

The Physical Environment

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________
2. Apart from the Operations Manager and the General Manager of Formcraft, who do you think are the other people or organisations who have an interest in the standard of health and safety in the canteen.

List at least three:
1. The Physical Environment
   . It is not clean
   . ventilation is poor
   . the exhaust duct is noisy
   . cramped working conditions

Management
   . there is a problem with staffing
   . disinterest in kitchen operations
   . staff feel they are overworked
   . maintenance may become a problem (Peter's refusal to fill in the form)

2. There are a number of people and organisations that have a professional interest in the Formcraft canteen situation. These include:
   . the State government department which deals with health matters
   . the local government department which deals with health matters
   . the State government department which deals with industrial safety matters
   . the State government which deals with labour issues
   . the state authority which is responsible for accident prevention (if separate from the department of labour)
   . the appropriate union

If you have included a person or organisation that you sincerely believe is correct, check it with your lecturer.
SKILLS UNIT 7: OCCUPATIONAL HEALTH & SAFETY: GENERAL

TOPIC: Background Research
OBJECTIVE: To identify organisations that can give advice on OH&S matters

Name: ___________________________
Class/Group: ___________________________

TASK 7.5

You are to locate a person with a professional interest in the OH&S standards. From this person you can obtain information on the issues of poor housekeeping and lack of safety procedures at the Formcraft Canteen (Task 7.4)

1. Using the telephone book locate State Department of Labour, or the union covering professional cooks and kitchen hands.

NOTE:

If a cook or kitchen hand works for a hotel or a club, they are usually covered by the Federated Liquor and Allied Trades Union. However, this is not the case in all parts of Australia. Cooks and kitchen hands who work for factories, other types of organisations or for some holiday resorts may be covered by other unions. Nonetheless, the Federated Liquor and Allied Trades Union, in your area, will be able to tell you which is the union for workers in particular situations. If you are living in one of the following places, your first point of contact is:

Northern Territory - Miscellaneous Workers' Union

Queensland: all areas except the southeast - Australian Workers' Union or the Miscellaneous Workers Union.

FOR ALL OTHER PLACES CONTACT THE FEDERATED LIQUOR AND ALLIED TRades UNION, AND ASK IF THEY ARE THE CONTACT YOU NEED IN THIS PARTICULAR CASE.

Title: ___________________________

Phone: ___________________________
TASK 7.5 (Cont’d)

2. Contact this organisation and locate the person there who can deal with your enquiry. Don’t forget to make a note of their name and position. (Make sure that you locate a person who has the authority to speak on behalf of their organisation on these matters.)

Name: ________________________________

Position: ______________________________

Contact phone number: ______________________

How do you know that they have the authority to speak for their organisation?

This is a very important part of this unit, because the accuracy of the rest of your answers depends on it.


3. From your contact person, find out what aspects of a workplace like the Formcraft Canteen do they have an interest in?


4. Ask your contact person which government department (local, Federal or State) has responsibility for the following aspects of workplace health and safety: (If they do not know, ask them to find out who does, and contact that person for the answers.)

Working conditions:
Design of kitchen equipment:

Personal protective clothing:

Work practices:

5. Discuss the information with other members of your group. Did you find any additional information from this discussion. YES/NO

If yes, then note down what this was.
1. The names and phone contacts for the Departments of Labour in the various States are as follows:

AUSTRALIAN CAPITAL TERRITORY - Office of Industry and Development; (06) 246.8885

NEW SOUTH WALES - Department of Industrial Relations and Employment; (02)266.8111

NORTHERN TERRITORY - Department of Labour and Administrative Services (089)895.466

QUEENSLAND - Department of Employment, Vocational Education & Training and Industrial Relations (07)227.4880

TASMANIA - Division of Labour and Industry; (002)307.712

SOUTH AUSTRALIA - Department of Labour; (08)226.3000

VICTORIA - Department of Labour; (03)266.6306

WESTERN AUSTRALIA - Occupational Health, Safety and Welfare; (09)321.8111

The names and phone contacts for the union in the various states are as follows:

AUSTRALIAN CAPITAL TERRITORY - Federated Liquor and Allied Trades Union; (06) 2480.0800

NEW SOUTH WALES - Federated Liquor and Allied Trades Union; (02)635.6240

NORTHERN TERRITORY - Miscellaneous Workers' Union; (089)81.5611 or 52.4441

QUEENSLAND - SOUTHEAST - Federated Liquor and Allied Trades Union; (07)839.3788

TASMANIA - Federated Liquor and Allied Trades Union; (002)284.817

SOUTH AUSTRALIA - Federated Liquor and Allied Trades Union; (08)212.7300
VICTORIA - Federated Liquor and Allied Trades Union; (03)326.5611
- also the Food Unions Health and Safety Centre; (03)663.5631

WESTERN AUSTRALIA - Federated Liquor and Allied Trades Union; (09)322.4236

2. You can consider that you have accomplished the task successfully if you have the person's name, formal position title, contact phone number, and a sound reason for that person having the authority.

For example, does the person's position title clearly indicate this? Are they in a public relations or information position and therefore are able to speak with authority? Or have you found out by asking someone obviously in authority that your contact is the person to ask?

DO NOT PROCEED WITH THE NEXT TASK UNTIL YOU HAVE A SATISFACTORY ANSWER TO THIS QUESTION.

QUESTIONS 3-5

In these questions, you were asked to document what the person authorised to give the answers has told you. Therefore, if you have accurately recorded what that person has said, you have satisfactorily completed the task.

Discussion of the answers with other members of your group may provide you with a broader view of the answers.
# STANDARDS

**TASK 7.1**  
10 to 12 factors correctly listed = Credit  
7 to 9 factors qualities correctly listed = Pass  
Less than 7 qualities listed = Not yet achieved

**TASK 7.2**  
**Question 1**  
5 or 6 factors = Credit  
4 factors = Pass  
Less than 4 factors = Not yet achieved

**Question 2**  
6, 7 or 8 items listed = Credit  
4 or 5 items listed = Pass  
Less than 4 items listed = Not yet achieved

**Question 3 & 4**  
5 or 6 changes suggested = Credit  
4 changes suggested = Pass  
Less than 4 changes suggested = Not yet achieved

**TASK 7.3**  
**Question 1**  
5 explanations correct = Credit  
3 or 4 explanations correct = Pass  
Less than 3 correct = Not yet achieved

**Question 2**  
5 items in priority order = Credit  
3 or 4 items in their correct priority positions = Pass  
Less than 3 items in the correct positions on the list = Not yet achieved

**Question 3**  
Sound solutions given for 5 problems = Credit  
Sound solutions given for 3 or 4 problems = Pass  
Sound solutions given for only 2 or less problems = Not yet achieved
STANDARDS

TASK 7.4  Question 1
5 to 7 issues identified = Credit
4 to 5 issues identified = Pass
3 or less issues identified = Not yet achieved

Question 2
3 to 6 people or organisations = Credit
2 people or organisations = Pass
1 or none = Not yet achieved

TASK 7.5  Questions 1 & 2
all 6 items of information = Credit
name of person and/or title = Pass
of their position phone number
explanation of why they have
authority
less information than is
required for pass

Questions 3 & 4
Both questions fully answered and discussed = Credit
Both questions answered but not discussed
if only one question answered, or both only partially

Question 5
No standards - group discussion
SKILLS UNIT 8: SPECIFIC OCCUPATIONAL HEALTH & SAFETY ISSUES

TOPICS:

MANUAL HANDLING

POLLUTANTS/STRESS

EMERGENCY PROCEDURES

OBJECTIVES:

MANUAL HANDLING

- to analyse the causes of accidents involving heavy loads and suggest prevention measures (Tasks 8.1, 8.2, 8.3)

- to identify factors that lead to back injury in the workplace (Task 8.4)

- to identify procedures for dealing with compensation and rehabilitation as a result of back injury in the workplace (Task 8.5)

POLLUTANTS/STRESS

- to recognise how to deal with OH&S problems caused by asbestos (Task 8.6)

- to recognise the effects of common pollutants and stress in the workplace (Task 8.7)

EMERGENCY PROCEDURES

- to identify first aid procedures for dealing with emergencies/severe cuts/bleeding (Tasks 8.8, 8.10)

- to analyse causes of accidents in the workplace and to suggest prevention measures (Task 8.9, 8.11, 8.13)

- to list the action to be taken in an emergency involving fire in the workplace (Task 8.12)
**NOTES FOR TEACHERS & TRAINERS**

**MANUAL HANDLING**

**Task 8.1**

This task extends the scenario introduced in Tasks 7.4 and 7.5 (Formcraft Canteen) and presents students with a description of an accident involving lifting a heavy load. Students are asked to analyse causes and suggest prevention measures. (The earlier scenario should be reread before doing this one)

**Task 8.2**

Students are presented with a scenario (Leabrook Community Hospital) and a description of accidents involving lifting and handling heavy loads. Students are asked to list the factors that contributed to the accident and to suggest prevention measures.

**Task 8.3**

This task follows on from Task 8.2 and requires students to list action that should be taken to deal with the accident rate at Leabrook Community Hospital.

**Task 8.4**

Students are presented with a scenario (Easterner Motel) and are asked to identify the factors leading to back injury as a result of handling heavy loads.

**Task 8.5**

This task follows on from Task 8.4 (Easterner Motel) and requires students to identify procedures for dealing with compensation and rehabilitation.
SKILLS UNIT 8: SPECIFIC OCCUPATIONAL HEALTH & SAFETY ISSUES

POLLUTANTS/STRESS

Task 8.6

Students are presented with a scenario (Northwood Council Kitchen) and are required to locate a person who is in a position to give authoritative advice on safe handling of asbestos in the workplace. It is recommended that this task be delegated to particular students to reduce the demands made on the person contracted. The information gathered may then be shared.

This scenario is used also in Task 8.7 and 8.8.

Task 8.7

This task develops further the scenario involved in Task 8.6 (Northwood Council Kitchen). Students are asked to identify 2 problems: workplace stress factors and effects of oven cleaners on lungs.

EMERGENCY PROCEDURES

Task 8.8

This task develops further the scenario used in Tasks 8.6 and 8.7 (Northwood Council Kitchen). Students are presented with a description of an accident involving an electric vegetable chopper and are asked to describe the first aid procedure for dealing with such accidents.

Task 8.9

This task follows on from Task 8.8 and requires students to analyse the causes of the accident described in the scenario (Northwood Council Kitchen) and to suggest prevention measures.
**SKILLS UNIT 8:** SPECIFIC OCCUPATIONAL HEALTH & SAFETY ISSUES

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**Task 8.10**

Students are presented with a description of an accident involving electricity and are asked to explain and demonstrate correct first aid procedure to be followed.

This task includes first aid (resuscitation). A practical demonstration of this would be appropriate. In this case, the grade is either satisfactory or unsatisfactory.

**Task 8.11**

This task follows on from Task 8.10 and requires students to analyse the causes of the accident and to suggest prevention measures.

**Task 8.12**

Students are asked to list the correct procedure for dealing with fire in the workplace.

**Task 8.13**

This task develops the scenario introduced in Tasks 7.4, 7.5 and 8.1 (Formcraft Kitchen).

Students are given a description of the way a fire in the kitchen is dealt with and are asked to analyse causes and suggest prevention measures.

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**RELATED SKILLS UNITS:**

**OCCUPATIONAL HEALTH & SAFETY: GENERAL**

(Skills Unit 7)
SKILLS UNIT 8: SPECIFIC OCCUPATIONAL HEALTH & SAFETY ISSUES

TOPIC: Manual Handling

OBJECTIVE: To analyse causes of accidents involving heavy loads and suggest prevention measures

Name: ____________________

Class/Group: ____________________

TASK 8.1

ACCIDENT IN THE FORMCRAFT KITCHEN

It had been a difficult morning. It was cold and there had been a heavy demand for hot food at morning tea time. The back door was closed, so the kitchen had steamed up.

At 11:30 the dishwasher broke down completely. There was a new part-time casual on the counter and Marilyn had not been prepared to let him or Sandra help in the kitchen. Peter had become very impatient. He argued angrily with Marilyn who shouted at him that he should have had the dishwasher serviced months ago. Wayne unpacked the dishwasher and took over dishwashing by hand. The kitchen became steamier, and the floor was splashed with soapy water.

At 12:00 Wayne had almost finished the morning tea dishes, when Marilyn rushed in the door, demanding to know where the soup was. Peter, who was standing at the food mixer, yelled at Tony to take the pot of soup (20 litres) from the stove, to the front counter.

Wayne was getting pretty sick of the disorder. He reached over to grab the pot himself, just to finish the argument. The pot had small metal handles and there was a lid for it somewhere, but he couldn’t find it now. The handles were quite hot so he tried to hold the pot with his apron and to move as fast as he could.

As he moved from the stove towards the door into the serving section, Wayne noticed that Marilyn was blocking his way. He shouted at her to move, but she didn’t. As he swerved to miss her he slipped and thumped his toe on the edge of the bench. He was wearing running shoes so he gave the toe a crack. One of the pot handles slipped from his grasp and the pot dropped between him and the bench. The hot soup split down his leg. He cracked his big toe and severely burned his lower leg.

1. List at least 2 factors that contributed to Wayne’s accident, under each of the headings given below. Many of the factors are interlinked, so what you write under one subheading may be closely associated with information under another.

Environmental Factors

______________________________________________

______________________________________________
TASK 8.1 (Cont'd)

Physical Workload Manual Handling Factors

Tools and Equipment

Safety

Management Factors

2. List 3 ways in which the soup might have been moved more safely.
3. The General Manager has asked the Operations Manager to report on changes to be implemented in order to prevent another accident like this one.

Write down at least 8 changes that you believe the Operations Manager should suggest. Your list will include changes related to staff/management relations, work practices, equipment, and safety.
1. Factors that contributed to Wayne's accident:

Environmental Factors

Ventilation is inadequate as evidenced by the steaminess.

Kitchen is too crowded to allow easy movement.

The floor is not clean and is wet.

Physical Workload and Manual Handling Factors

Staff are unsure of who is responsible for what duties (poor job design).

Systems for doing some tasks (i.e. moving large containers of hot food) are poorly worked out (poor job design).

Tools and Equipment

The handles on the pot are small.

The pot was not closed while being moved.

Lack of equipment to move heavy containers of dangerous material from the kitchen to the counter.

Safety Factors

The kitchen is untidy.

Wayne is wearing inappropriate shoes.

Management Factors

Job descriptions are not clear.

Management of the canteen is too remote and not interested enough; the Operations Manager considers the canteen a nuisance.
There is a lack of procedure for dealing with staff concerns.

There is a lack of management within the kitchen. No one takes responsibility for maintenance of equipment.

2. Use a trolley to move the pot.
   Decant the liquid into smaller containers.
   Assign the tasks in an orderly manner.
   Use proper procedures; check that the way is clear, use cloths, ensure that there is no danger to others.

3. Lines of command need to be clear (provide job descriptions)
   A procedure for dealing with staff grievances needs to be introduced.
   Practices and equipment need to be more carefully overseen, to ensure that they are safe.
   Staff must follow procedures in relation to the giving and taking of orders and the correct use of equipment.
   An alternative means of moving the soup must be introduced.
   The ventilation in the kitchen needs to be improved.
   Metal handles on the pot must be fitted with plastic grips.
   General housekeeping must be improved.
   The personal behaviour of individual workers needs to improve; e.g. Wayne's shoes.
   More reasonable timelines must be worked out.
SKILLS UNIT 8: SPECIFIC OCCUPATIONAL HEALTH & SAFETY ISSUES

TOPIC: Manual Handling

OBJECTIVE: To analyse the causes of accidents involving heavy loads and suggest prevention measures

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**Name:**

**Class/Group:**

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**TASK 8.2**

**LEABROOK COMMUNITY HOSPITAL**

You are employed as a cook in a small public hospital. Over the last two years there have been a number of accidents associated with manual handling of supplies in the kitchen store.

**The Hospital**

The hospital is understaffed in a number of areas. The staff have elected strong union representatives over the last couple of years with a view to pressuring management to do something about the accident rate. Management is refusing to spend money at this time. However, negotiations with union representatives have been underway for some weeks.

Difficulties in the kitchen are aggravated by the safety problems, particularly the shortage of cleaning staff, and the confusion resulting from a proposed restructure of some of the management and administrative sections.

The union has been complaining about the state of the store for 18 months and is threatening industrial action.

**Staffing**

The kitchen has two shifts per day, each of 2 cooks and 5 hands. They prepare on average 450 meals each day. At times change-overs between the shifts are hurried and staff have little time to talk to each other.

**The Store**

The main store measures 8 metres x 5 metres, with a 3 metre ceiling. There are metal shelves up to the ceiling, containing bags of flour etc., large cans of fruit, cartons of cans, drums of oil and open crates of bottled foodstuffs. The store is usually overcrowded and not well organised. There is no mechanical assistance for handling. A small step ladder is provided for reaching higher shelves.

There is a single door between the kitchen and the store. Anyone from the kitchen can get supplies from the store.

Goods are delivered by truck to the back door of the kitchen. Most are on pallets, but there is usually a surplus of bags, cartons and/or tins that won't fit on so are separate. As the pallets won't fit in the store they are unloaded on arrival, and supplies are carted by the kitchen staff to the store, a distance of 4 metres.
**TASK 8.2 (Cont'd)**

Supplies are ordered through a centralised purchasing scheme. Economy measures implemented by central office dictate that supplies be ordered in bulk.

**The Cold Store**

The cold store measures 3 metres x 2 metres with a 3 metre ceiling. It has shelves like the main store. The lighting is adequate and there is sufficient space, however, the floor isn't cleaned as often as it should be.

The following are brief descriptions of the reported accidents during the preceding 3 months.

In the space following each, identify:

a) the factors that contributed to each accident (at least 3);

b) what could have been done to prevent each accident (at least 3).

1. George

George is 160 cm, 98 kg, 40 year old male chef. George was on the step ladder and reached up to take a shrink-wrapped plastic pack of cans from the top shelf. As he was getting down, he slipped between the second and third steps and fell backwards on to the floor. The pack fell on top of him. He has a minor spinal fracture.

   a) Factors that contributed to the accident:

   b) How the accident could have been prevented:

   

2. Marlene

Marlene is 150 cm, 56 kg, 45 year old female hand. Marlene reached over a carton in the store to pick up a 20 litre drum of oil. She intended to decant some of the contents into a smaller jug which she had in her left hand at the time. She felt a sudden sharp pain in her lower back and was off work for six days.

   a) Factors that contributed to the accident:

   b) How the accident could have been prevented:

   

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3. Craig

Craig is 183 cm, 65 kg, 18 year old male hand. Craig is usually full of energy and enthusiasm. He is a good man to have around when the stores arrive, because he works very fast. He went to see the Occupational Health Nurse complaining of soreness in his lower back. The day before he had been unloading he remembered feeling stretched when he carried two cartons of canned food, one on top of the other, from the pallet to the store.

a) Factors that contributed to the accident:

b) How the accident could have been prevented:

4. Shelley

Shelley is 155 cm, 53 kg, 28 year old female cook. Shelley picked up a bag of flour (25 kg) and was carrying it cradled in her arms. She couldn't see directly in front. A can of instant coffee, stored in a pile beside the shelf, had been knocked and rolled in to the middle of the aisle. Shelley tripped and fell against the shelf suffering bruises to her arm and back.

a) Factors that contributed to the accident:

b) How the accident could have been prevented:

5. Bernard

Bernard is a 180 cm, 85 kg, 40 year old male cook. Bernard went into the cool store to get an aluminium tray of frozen chickens (20 kg). Because the tray was so cold on his hands he turned quickly to leave, his foot slipped and he fell. He suffered severe bruising to his legs and has had on-going pain in his right knee since the accident.

a) Factors that contributed to the accident:

b) How the accident could have been prevented:
ASSESSMENT: TASK 8.2

1. George

   a) Factors
      . carrying weights while on a step ladder
      . lifting weight over head height
      . heavy goods stored too high
      . use of a step ladder in a store
      . inadequate training

   b) Prevention
      . store larger and heavy items lower down, between knee and shoulder height
      . have no storage over 1.8 to 2 metres
      . given that the goods are stored high, George should ask for help
      . split the pack and take the cans a few at a time, in a basket or similar carrier
      . provide training in manual handling

2. Marlene

   a) Factors
      . reaching over one object to lift another
      . lifting with one hand
      . goods stored so that awkward objects are inaccessible
      . insufficient storage space
      . inadequate training

   b) Prevention
      . put the jug down so that both hands are free to move the carton
      . reorganise the store to improve accessibility
      . store goods more thoughtfully
      . place drums on a stand, and fit with a tap to enable decanting
      . provide training in manual handling

3. Craig

   a) Factors
      . double handling of the goods, because there isn't room to keep the pallet in the store until the goods are needed
      . carrying two boxes at once
      . no mechanical assistance with unloading
b) Prevention
   . carry the boxes one at a time
   . work more slowly and thoughtfully
   . provide training in manual handling

4. Shelley

   a) Factors
      . Shelley is too small to carry this weight
      . she was carrying it in a way which blocked her view of her path
      . cans were stored on the floor where they were a potential hazard
      . no mechanical assistance provided
      . consequences of the actions of others
      . inadequate training

   b) Prevention
      . ask for help with the bag
      . drag the bag rather than lift it
      . decant some of the flour
      . provide training in manual handling

5. Bernard

   a) Factors
      . in cold conditions grip is more difficult
      . inadequate hand protection
      . the floor of the cold store may have not been cleaned adequately and so was more likely to be slippery
      . turning with a weight in his hands
      . inadequate footwear (possibly)

   b) Prevention
      . wear mesh to improve grip
      . extreme caution given the state of the floor
SKILLS UNIT 8: SPECIFIC OCCUPATIONAL HEALTH & SAFETY ISSUES

TOPIC: Manual Handling

OBJECTIVE: To analyse the causes of accidents involving heavy loads and suggest prevention measures

Name: ______________________
Class/Group: ______________________

TASK 8.3

Read the situation and description of accidents in Task 8.2.

The kitchen staff have had a meeting to discuss the high accident rate.

1. What immediate action can they take to improve the situation? (List at least 8 items)

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

2. What instructions on manual handling would the new occupational health and safety representative give a temporary junior employee who is about to start? (List at least 5 items)

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
1. **IMMEDIATE ACTION THAT THE KITCHEN STAFF COULD TAKE**

   - staff could identify hazards in the store and take action
   - take steps to get management involved in investigating complaints in order to work out some low cost improvements
   - insist on the development of a proper scheme of work practices so employees learn to lift according to their capacity, and how to handle weights
   - one person per shift to be appointed as Occupational Health and Safety Officer
   - insist on manual handling training
   - clear floor
   - organise shelves so heavy items are more accessible
   - on the top shelves, break down larger packs into smaller ones
   - ensure that most frequently used items are near the door
   - insist on the cool room being cleaned and maintained, and on anti-skid stripping or boarding on the floor
   - insist on a supply of gloves to be kept close to the cold store entrance
   - find a way to prop up oil drums and approach the supplier regarding supply of drums with tap fittings.

2. **MANUAL HANDLING INSTRUCTIONS TO A TEMPORARY HAND**

   The answers should include points which cover the following aspects of manual handling

   - understanding your own capacity
ASSESSMENT: TASK 8.3 (Cont’d)

- judging a load
- engaging a load
- turning with a load
- lifting and lowering
- using a technique suitable for the load
- ensuring that you can see ahead
SKILLS UNIT 8: SPECIFIC OCCUPATIONAL HEALTH & SAFETY ISSUES

TOPIC: Manual Handling

OBJECTIVE: To identify factors that lead to back injury in the workplace

Name: ____________________________
Class/Group: ____________________________

TASK 8.4

THE EASTERNER MOTEL

The Easterner is an inner city hotel motel.

The motel has 40 rooms on two levels, 20 on each level. The second level is reached by undercover stairs at each end of the building.

Each room has the following:

- a boxed-in bed or beds (with sheets and blankets)
- a dressing table
- a small working table with two chairs
- the bathroom area has the toilet, the hand basin and the shower recess, with glass screens

The motel manager employs four part-time cleaners. They work two to each level from 9:30 until 12:00, by which time they must be finished. The shift is usually fairly rushed, so there is only time to make one trip to the store.

The cleaners' duties include servicing the rooms; making and changing beds, dusting, vacuuming floors, emptying bins, restocking fridges and tea and coffee supplies, cleaning the bathrooms.

The equipment they use includes a heavy industrial vacuum cleaner, broom, ordinary scrubbing brushes, dusters, sponges, cloths, a spray surface cleaner and chemical cleaners.

Each cleaner has a trolley with small wheels and a large wire basket for dirty linen, and a holder with large plastic trays for the clean linen supplies. There is a container for cleaning equipment and chemicals. When fully loaded the trolleys are fairly heavy. The trolleys are stored in the main building but need to be stocked from the store across the courtyard. The trolleys for the second floor are stored there, so cleaning staff need to carry supplies up and dirty linen down.

The manager has high standards when it comes to cleanliness. Rooms are inspected regularly, because the manager says staff can't be trusted to get it right on their own. In the past many cleaners have found the manager's attitude too much and the turnover amongst cleaning staff has been high.
TASK 8.4  (Cont'd)

THE INCIDENT

Freda is a one of the part-time cleaners. At the end of the day's work, she was rushing to get all of the dirty linen out of the basket. It was packed in tight, and was bulky and heavy. As she gave it a heave, Freda felt a sharp pain in her lower back and was unable to straighten up.

Freda called her husband to take her home and, that afternoon, went to the doctor. The doctor's opinion was that, although heaving the linen that morning had triggered the injury, it was highly probable that the strain of her general duties had contributed considerably. She was off work for three days.

The manager told Freda that, because she was a casual employee, she was not covered by workers' compensation, nor was he obliged to continue her employment. He dismissed her.

What kind of physical movements are likely to have contributed to Freda's problem. Write these under the tasks that would have included these movements. You should identify at least 8 movements.

Making and Changing Beds

________________________________________________________________________
________________________________________________________________________

Cleaning Showers

________________________________________________________________________
________________________________________________________________________

Vacuuming

________________________________________________________________________
________________________________________________________________________

Supplying and moving the Trolley

________________________________________________________________________
________________________________________________________________________
Making and Changing Beds
- Reaching out with back bent
- Applying force while reaching
- Not being able to get close enough to work (beds boxed in)

Cleaning Showers
- Reaching and bending
- Applying force while reaching to use brushes and cloths
- Working in low areas

Vacuuming
- Low bending
- Dragging and carrying heavy machine

Supplying and Moving the Trolley
- Pushing awkward (small wheels)
- Pushing a heavy, overloaded trolley
- Stooping to fill and empty the trolley
- Carrying heavy bundles
- Carrying stores up and down stairs
SKILLS UNIT 8: SPECIFIC OCCUPATIONAL HEALTH & SAFETY ISSUES

TOPIC: Manual Handling

OBJECTIVE: To identify procedures for dealing with compensation and rehabilitation as a result of back injury in the workplace

Task 8.5

Workers Compensation and Rehabilitation

The Easterner Motel

The Easterner is an inner city hotel motel.

The motel has 40 rooms, 20 on each level. The second level is reached by undercover stairs at each end of the building.

Each room has the following:

1. a boxed-in bed or beds (with sheets and blankets)
2. a dressing table
3. a small working table with two chairs
4. the bathroom area has the toilet, the hand basin and the shower recess, with glass screens

The motel manager employs four part-time cleaners. They work two to each level from 9:30 until 12:00, by which time they must be finished. The shift is usually fairly rushed, so there is only time to make one trip to the store.

The cleaners' duties include servicing the rooms; making and changing beds, dusting, vacuuming floors, emptying bins, restocking fridges and tea and coffee supplies, cleaning the bathrooms.

The equipment they use includes a heavy industrial vacuum cleaner, broom, ordinary scrubbing brushes, dusters, sponges, cloths, a spray surface cleaner and chemical cleaners.
TASK 8.5 (Cont'd)

Each cleaner has a trolley with small wheels and a large wire basket for dirty linen, and a holder with large plastic trays for the clean linen supplies. There is a container for cleaning equipment and chemicals. When fully loaded the trolleys are fairly heavy. The trolleys are stored in the main building but need to be stocked from the store across the courtyard. The trolleys for the second floor are stored there, so cleaning staff need to carry supplies up and dirty linen down.

The manager has high standards when it comes to cleanliness. Rooms are inspected regularly, because the manager says staff can't be trusted to get it right on their own. In the past many cleaners have found the manager's attitude too much and the turnover amongst cleaning staff has been high.

THE INCIDENT

Freda is a one of the part-time cleaners. At the end of the day's work, she was rushing to get all of the dirty linen out of the basket. It was packed in tight, and was bulky and heavy. As she gave it a heave, Freda felt a sharp pain in her lower back and was unable to straighten up.

Freda called her husband to take her home and, that afternoon, went to the doctor. The doctor's opinion was that, although heaving the linen that morning had triggered the injury, it was highly probable that the strain of her general duties had contributed considerably. She was off work for three days.

The manager told Freda that, because she was a casual employee, she was not covered by workers' compensation, nor was he obliged to continue her employment. He dismissed her.

1. Suggest three people or organisations that Freda might go to for advice on what to do.

   ____________________________________________________________
   ____________________________________________________________
   ____________________________________________________________

2. Locate the name and phone number of the organisation, in your State, which ensures that injured workers are provided with payments while they are unable to work. (You may need to contact more than one before you locate someone who has the information you need)

   ____________________________________________________________
   ____________________________________________________________
   ____________________________________________________________
3. Contact this organisation and locate the person there who can deal with your enquiry. Don’t forget to make a note of their name and position. (Make sure that you locate a person who has the authority to speak on behalf of their organisation on these matters.)

Name: ____________________________

Position: __________________________

Contact phone number: __________________________

How do you know that they have the authority to speak for their organisation?

This is a very important part of this unit, because the accuracy of the rest of your answers depends on it.

____________________________________________________________________

____________________________________________________________________

4. From the person or organisation you find, get the answers to the following questions:

   a. Was Freda’s boss entitled to stop paying her?
   
      ___________________________________________________________________

   b. If the answer is no, give two courses of action Freda can take?
      
      ___________________________________________________________________

      ___________________________________________________________________

   c. What is the organisation in your state responsible for rehabilitation?

      (You will need this information to do Question 5)

      ___________________________________________________________________
5. Freda decides, after talking to her doctor, that she would be unwise to work until her injury is treated. She goes to a rehabilitation counsellor for help.

From the rehabilitation contact in your State, obtain the following information:

a) How does a person get access to the rehabilitation system?

b) Who is eligible for the rehabilitation service?

c) What are the responsibilities of the injured person?
1. Freda could go to any of the following for advice:

   - Workers Compensation Office
   - Union
   - Industrial Relations Officer
   - A Rehabilitation Officer (Workcare in Victoria, WorkCover in South Australia, etc)
   - The Department of Labour in her State
   - A solicitor
   - An Equal Employment Opportunity Officer

2. Organisations that ensure that injured workers are paid

   **ACT**
   - ACT Administration, Central Office
     Department of the Arts, Sport, the Environment, Tourism and Territories; (06) 275.8111

   **NSW**
   - State Compensation Board; (02)697.8333

   **NORTHERN TERRITORY**
   - Work Health Authority; (089)89.5511

   **QUEENSLAND**
   - Workers' Compensation Board; (07)231.9500

   **SOUTH AUSTRALIA**
   - WorkCover Head Office;(08)233.2411

   **TASMANIA**
   - Workers' Compensation Board; (002)30.8011
ASSESSMENT: TASK 8.5 (Cont’d)

VICTORIA

- Accident Compensation Commission; (03)603.1555

WESTERN AUSTRALIA

- Workers’ Compensation and Rehabilitation Commission; (09)322.2467

4. a. No, Freda’s boss was not entitled to stop paying her.

   b. The kind of advice given will, to some degree, depend on the person who is asked. However, the following are the options:

      Undertake a rehabilitation program

      Negotiate with the employer

      Take legal action; sue the employer

      Do nothing; find another job

   c. Teacher/trainer to check on State/Territory organisation that has responsibility for rehabilitation.

5. In these questions, you were asked to document what the person authorised to give the answers has told you. Therefore, if you have accurately recorded what that person has said, you have satisfactorily completed the task.
SKILLS UNIT 8: SPECIFIC OCCUPATIONAL HEALTH & SAFETY ISSUES

TOPIC: Pollutants/Stress

OBJECTIVE: To recognise how to deal with OH&S problems caused by asbestos

Name: __________________
Class/Group: ____________

TASK 8.6

THE NORTHWOOD COUNCIL KITCHEN

The Northwood Council Kitchen full-time staff consists of the full-time manager, Valda Walker, the cook Geoff Mitchell, a cook's assistant Tim Bradshaw, and a kitchen hand, currently Tran Nguyen.

The building was built in 1963. The kitchen area was updated about 10 years ago. Lately it has become run down. Funds for renovations have not been available.

The ceiling is in poor condition. This has been worsened by a leak in the roof. A damp patch has formed and paint and ceiling material itself are flaking off.

There is to be a new air conditioner installed in the kitchen. This will mean drilling a large opening in the wall, which is in good condition and has recently been painted.

The ceiling is coated with a sprayed friable asbestos. The walls are made of asbestos cement sheeting.

1. Which is correct?

Asbestos has the potential to cause:

a) heart disease
b) diabetes
c) lung cancer

2. What is the name and contact phone number of the authority responsible for providing information about the safe handling of asbestos in your State?

..........................................................................................

..........................................................................................

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3. Contact this organisation and locate the person there who can deal with your enquiry. Don't forget to make a note of their name and position. (Make sure that you locate a person who has the authority to speak on behalf of their organisation on these matters.)

Name: ____________________________________________________________

Position: __________________________________________________________

Contact phone number: _____________________________________________

How do you know that they have the authority to speak for their organisation?

____________________________________________________________________

____________________________________________________________________

4. Through your contact, find out if the following statements are true or false:

a) When asbestos is discovered in a workplace, it should be removed immediately by the person responsible for maintenance in that workplace.  TRUE/FALSE

b) Fibrous asbestos is less likely to cause a health hazard if it is wet.  TRUE/FALSE

c) Asbestos sheeting is not a health risk, if it is in good condition and is not disturbed and fibres released into the air.  TRUE/FALSE

d) Any person who is quick and careful can remove asbestos; it doesn't require any special know how.  TRUE/FALSE

e) Once removed, asbestos should be placed in the nearest rubbish bin.  TRUE/FALSE
TASK 8.6 (Cont’d)

f) If asbestos is scattered, it should be swept up immediately.  TRUE/FALSE

g) If asbestos is to be removed, the appropriate State government department should be contacted and asked to provide advice.  TRUE/FALSE

5. THE COUNCIL KITCHEN CEILING

Tim, the cook’s assistant, notices the ceiling flaking. He has heard about asbestos being a health risk, and is concerned. He tells his the cook, who tells him he is just a worrier.

Which of the following would be sensible things for Tim do in this situation?

. Continue working and not worry  YES/NO
. Contact his union  YES/NO
. Bring it up at the monthly staff meeting  YES/NO
. Tell the manager  YES/NO

6. THE COUNCIL KITCHEN WALLS

The crew have arrived to install the air conditioner. They have inspected the wall where it is to be located, and decide that it will be okay for them to remove the panel in one piece and put in a substitute sheet.

Which of the following would be sensible things for Tim do in this situation?

. Continue working and not worry  YES/NO
. Contact his union  YES/NO
. Bring it up at the monthly staff meeting  YES/NO
. Tell the manager  YES/NO
1. The correct answer is lung cancer.

2. The authorities responsible for asbestos are listed below:

   AUSTRALIAN CAPITAL TERRITORY - Workcover Authority, Division of Occupational Health & Safety; Phone (02) 287-6111.

   NEW SOUTH WALES - NSW Workcover Authority, Division Occupational Health & Safety; phone (02) 287.6111.

   NORTHERN TERRITORY - Field Operations Section, Work Health Authority, phone; (089)985.037

   QUEENSLAND - Division of Accident Prevention, Department of Employment, Vocational Training and Industrial Relations; phone (07)227.4898

   TASMANIA - Workplace Section, Division of Labour and Industry; phone (002)30.7696

   SOUTH AUSTRALIA - Asbestos Section, Department of Labour; phone (08)226.3006

   VICTORIA - Prevention Branch, Department of Labour; phone (03)655.6533

   WESTERN AUSTRALIA - Construction and Safety Branch, Department of Occupational Safety and Welfare; phone (09)327.8777

4. a) When asbestos is discovered in a workplace, it should be removed immediately, by the first available person in that workplace.
   FALSE

   b) Fibrous asbestos is less likely to cause a health hazard if it is wet.
   FALSE

   c) Asbestos sheeting is not a health risk, if it is in good condition and is not disturbed and fibres released into the air.
   TRUE
d) Any person who is quick and careful can remove asbestos; it doesn't require any special know how.  
FALSE

e) Once removed, asbestos should be placed in the nearest rubbish bin.  
FALSE

f) If asbestos is scattered, it should be swept up immediately.  
FALSE

g) If asbestos is to be removed, the appropriate State government department should be contacted and asked to provide advice.  
TRUE

5. THE COUNCIL KITCHEN CEILING  
   . Continue working and not worry NO  
   . Contact his union YES  
   . Bring it up at the monthly staff meeting YES  
   . Tell the manager YES

6. THE COUNCIL KITCHEN WALLS  
   . Continue working and not worry YES  
   . Contact his union NO  
   . Bring it up at the monthly staff meeting NO  
   . Tell the manager NO
SKILLS UNIT 8: SPECIFIC OCCUPATIONAL HEALTH & SAFETY ISSUES

TOPIC: Pollutants/Stress

OBJECTIVE: To recognise the effects of common pollutants & stress in the workplace

Name: 
Class/Group: 

TASK 8.7

THE NORTHWOOD COUNCIL KITCHEN

Tim was finding keeping up with both work and study difficult lately. His chest had been wheezing; he hadn't had much asthma trouble since he was a kid.

Tim had taken a number of days off, but he hadn't rested. He had spent the time catching up on work for the Hospitality Management course he was doing. He saw this course as his chance of escape from the ratpack he was in now.

The kitchen-hand, Tran, had an accident with the vegetable chopper when Tim was off sick. This has been a terrible shock to Tim. Tim usually is the one who uses this machine and he knows how dangerous it can be.

The menu was always changing. The cook seemed to spend all his time in his office, with the door closed, thinking up new menus. Tim was never consulted about the changes, even though he was in charge of ordering.

Tim felt overworked. He did all the ordering, maintenance, and filling in when there was no one else. He was in charge of what the Meals-on-Wheels volunteers did in the kitchen, and that was a real hassle. Volunteers were unreliable. They never knew what they were supposed to do.

Lately Tim had to do a lot of the basic jobs himself; cleaning the ovens for one. He hated that job. The smell always got to him. Before the old air conditioner was replaced last week, it had been even worse.

The cook was getting angry more often these days. The manager didn't seem to want to know about any of the problems in the kitchen. He couldn't talk to anyone about it.

Tim was feeling more and more depressed. His study was suffering and his chest was getting worse.
TASK 8.7 (Cont’d)

WORKPLACE STRESS FACTORS
1. List three factors to do with the way the workplace is organised, which are contributing to Tim’s stress.

______________________________________________________________

______________________________________________________________

______________________________________________________________

COMMON POLLUTANTS
2. Tim’s lungs have been giving him trouble lately.

Tim thinks that the oven cleaner he has been using may have been part of the problem.

What is the most important thing he should do?

______________________________________________________________

3. Apparently Tim is right. It seems that the oven cleaners are likely to have contributed greatly to his lung problems.

Say what Tim should have done before using the oven cleaners.

______________________________________________________________

______________________________________________________________

______________________________________________________________
4. The Town Clerk want a full report on Occupational Health and Safety in the kitchen. Everyone is to contribute ideas.

What suggestions should Tim include, in order to help sort out his problems with both workload and his lungs. (List at least 5, more if you can)

_________________________________________________________________________

_________________________________________________________________________

_________________________________________________________________________

_________________________________________________________________________

_________________________________________________________________________
WORKPLACE STRESS FACTORS

1. Factors in the workplace contributing to Tim's stress:
   - uneven and/uncontrolled workload (lack of job description for Tim)
   - poor production practice (unplanned changes to the menu)
   - disinterested management (both the cook and the manager seem to be taking too little interest)
   - poor management of the volunteers
   - lack of staff counselling (both after the accident and to provide Tim with advice on organising his time)

COMMON POLLUTANTS

2. The most important thing Tim should do is see a doctor about his lungs, making sure that the doctor he sees understands about occupational diseases.

3. Before using the oven cleaner, Tim should have read the instructions on the container and followed these carefully.

   The instructions on the oven cleaner label will include things like:
   - use rubber gloves
   - don't put your head in the oven after spraying
   - use special tools to reach the back of the oven
   - breath carefully, so as not to take in a lung full of fumes
   - ensure that ventilation is adequate

YOUR JUDGEMENT WILL BE NEEDED TO DETERMINE THAT PRECAUTIONS TAKEN ARE ADEQUATE. IN SOME CASES, FOR EXAMPLE, IN A CLOSED ROOM 'ADEQUATE VENTILATION' MAY MEAN THAT AN EXTRA SMALL FAN IS NEEDED

FOLLOW THE INSTRUCTIONS ON THE LABEL, BUT BE SMART TOO.
4. Suggestions Tim could put forward might include:

**WORKLOAD**
- clear up confusion over who does what by writing job descriptions for kitchen staff
- set up a system for handling staff complaints
- sort out procedures and training for the volunteers
- improve the administration practices; e.g. co-ordinate menu changes and ordering

**THE OVEN CLEANING**
- that training is provided for new staff on the potential hazards and how to treat them
- that the ventilation is improved
- someone without a medical history of lung trouble cleans the oven in future
SKILLS UNIT 8: SPECIFIC OCCUPATIONAL HEALTH & SAFETY ISSUES

TOPIC: Emergency Procedures

OBJECTIVE: To identify the first aid procedures for dealing with emergencies/severe cuts/bleeding

Name: ____________________________

Class/Group: _______________________

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**TASK 8.8**

**NORTHWOOD COUNCIL KITCHEN**

Tran's accident

Tran, the kitchen hand, is a Vietnamese accountant, recently arrived in Australia. His family is still in Vietnam. He speaks little English and is undertaking further studies and examinations.

Tim, the cook's assistant, usually chips the vegetables, using an electric chopper. Today Tim is away sick. The cook asks Tran to do it, telling him to check the warning notice on the machine. Tran has not used a machine like this before.

The electric chopper has the following features:

- bench mounting
- rotating bowl, with a high speed chopping blade inside
- hinged lid, lowered to cover the chopping bowl
- starter button; needs to be pressed to start (the motor will not start until the cover is closed)
- the cover has a large opening at the front (so additional vegetables can be added while the machine is running)
- label above opening reads "CAUTION. Sharp Blade Inside. KEEP HANDS OUT"

Tran loads the machine and switches it on.

Some pieces of vegetable are not being properly chopped. Tran doesn't want to bother turning the machine off, and starting it again. He waits for it to stop rotating and then opens the lid. He picks up a carrot and uses it to poke at the pieces of vegetable.

The cook dropped a pot onto the stove top. The noise distracts Tran. His fingers move too close to the blade.

He lurches back with a cry, clutching a savagely hacked and bloodied right hand. The end of one finger is missing.
The cook is alone in the kitchen with Tran.

1. What should he do immediately to treat Tran's bleeding hand?

2. Once the immediate first aid is applied, what is the next thing the cook should do?

3. What should the cook do about the missing finger?
1. Immediately the cook should:
   1. Apply and maintain firm pressure to the wound with a pad, or with a hand if necessary.
   2. Elevate the injured part.

2. After providing the immediate first aid, the cook should ring for medical assistance; an ambulance.

3. The cook should find the missing finger and pack it in ice, in a clean container or cloth. It should go to the hospital with Tran, in case it can be sewn back on.
SKILLS UNIT 8: SPECIFIC OCCUPATIONAL HEALTH & SAFETY ISSUES

TOPIC: Emergency Procedures (Dangerous Equipment)

OBJECTIVE: To analyse causes of accidents in the workplace and to suggest prevention measures

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Name: _______________________
Class/Group: __________________

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TASK 8.9

THE NORTHWOOD COUNCIL KITCHEN

Tran's accident

Tran, the kitchen hand, is a Vietnamese accountant, recently arrived in Australia. His family is still in Vietnam. He speaks little English and is undertaking further studies and examinations.

Tim, the cook's assistant, usually chips the vegetables, using an electric chopper. Today Tim is away sick. The cook asks Tran to do it, telling him to check the warning notice on the machine. Tran has not used a machine like this before.

The electric chopper has the following features:

- bench mounting
- rotating bowl, with a high speed chopping blade inside
- hinged lid, lowered to cover the chopping bowl
- starter button; needs to be pressed to start (the motor will not start until the cover is closed)
- the cover has a large opening at the front (so additional vegetables can be added while the machine is running)
- label above opening reads "CAUTION. Sharp Blade Inside. KEEP HANDS OUT"

Tran loads the machine and switches it on.

Some pieces of vegetable are not being properly chopped. Tran doesn't want to bother turning the machine off, and starting it again. He waits for it to stop rotating and then opens the lid. He picks up a carrot and uses it to poke at the pieces of vegetable.

The cook dropped a pot onto the stove top. The noise distracts Tran. His fingers move too close to the blade.

He lurches back with a cry, clutching a savagely hacked and bloodied right hand. The end of one finger is missing.
**TASK 8.9 (Cont'd)**

Factors contributing to the accident

1. List three feature of the machine design which contributed to the accident.

2. When the manager heard about accident, she said that it must have been Tran's fault.
   
   List three factors related to Tran's behaviour that may have contributed to the accident.

3. Give two other factors which may have contributes to the accident
TASK 8.9 (Cont'd)

PREVENTION

4. The Manager calls a meeting to discuss the accident and to suggest ways in which something like this can be prevented from happening again.

Provide a list of up to 10 suggestions to put forward at this meeting.

_______________________________
_______________________________
_______________________________
_______________________________
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_______________________________
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_______________________________
Factors which contributed to the accident:

1. Poor machine design

   Some factors:
   . safety devices incomplete, inadequate and easily flouted
   . no proper guarding where the hazard is recognised and noted by the manufacturer
   . the warning label insufficient, and not a substitute for proper design
   . use of words where graphics would have been more appropriate
   . poor machine function (it should chop properly).

2. Tran's behaviour

   Some factors:
   . Tran knew he should have stopped the machine, but he didn't want to bother starting it again.
   . Tran has family worries, which may have contributed to his lack of concentration on the task in hand.
   . Tran knew he couldn't read the warning, so he knew he didn't have adequate instructions for the task.

3. Other factors

   Insufficient instruction in machine use.

   Insufficient supervision of a worker, inexperienced in the job-in-hand.

Explanation:

   . company employment policy should ban untrained workers using potentially dangerous machines.
   . inadequate instruction at the time; rough verbal instructions.
   . instructions not appropriate for a non-English speaker.
4. Get rid of the machine, and buy a safer one.

Provide guards for machines to eliminate hazards - either at manufacture (ideally) OR by adding guarding or putting the machine behind a barrier with interlocked switches on the cover or door.

Add extra warning notices where necessary.

Give people work appropriate to their knowledge and/or induct them properly.

When giving instruction, highlight the hazards.

Check the user's knowledge/comprehension of the hazards.

Demonstrate correct procedures and supervise the new user in trial runs.

Check equipment for safety features and hazards before purchase.

Introduce safety practices for all users of dangerous machines.

Check users knowledge of safe operating procedures regularly.

Take account of background, i.e. social factors which may affect a person's performance.
TASK 8.10

THE CAFE BOUFFE

Maurice, the chef, picks up the hand beater to whip a sauce. His hands are wet, but he is in a hurry so he doesn't dry them. There are only two single power outlets in the kitchen. Paul, the assistant, had used the blender on the stainless steel bench, and left it switched on and plugged in. Maurice grabs the blender plug and pulls it out. He grips the hand beater plug in his hand. His grip is less secure because his hand are wet.

As he pushes the plug in, Maurice's hand slips and his fingers come into contact with the plug pins. His other hand is flat on the bench.

Maurice instantly comes live. The muscles of his forearm go into strong involuntary flexing. For a second his fingers are locked to the plug. The violence of his body spasms throws him back. He cries our loudly. His head cracks against the handles of the stove.

Maurice lies on the floor, convulsing slightly. He is blue in the face. His eyes are wide and staring. He does not seem to be breathing.

Paul stands back in horror. He calls for help.

1. What is the first thing that Paul should do?

2. The manager and a customer have heard Paul's shout and come into the kitchen. The customer says he has first aid training and wants to go to Maurice's assistance.

   a) What does he need to know before he touches Maurice?

   b) Why?
3. What first aid should be given to Maurice?

(YOU MAY PROVIDE A DESCRIPTION OR A DEMONSTRATION OF RESUSCITATION. BUT IT MUST BE COMPLETELY CORRECT FOR A SATISFACTORY GRADING)

____________________________________________________________________
____________________________________________________________________
____________________________________________________________________
____________________________________________________________________
____________________________________________________________________
____________________________________________________________________
____________________________________________________________________
____________________________________________________________________
1. The first thing Paul should do is turn off the electricity.

2. a) Before touching a person who has been electrocuted, it is essential to know that the electricity has been turned off.

b) If the electricity has not been turned off, there is a danger that the person giving assistance may be electrocuted as well.

3. If a person has been electrocuted, the first aid given is the same as for collapse.

Shake them and shout "Are you all right?" If they respond make them comfortable and apply first aid.

If they do not answer, the airways must be cleared to allow air to enter the lungs.

A. AIRWAYS
   . Clear airways; place the victim on their side and tilt their head back.
   . Clear mouth; quickly clear the mouth, using fingers.
     If the patient is breathing, leave them on their side.

B. BREATHING
   1. If not breathing:
      Place on back, tilt head back, support the jaw, keeping fingers away from the neck.

   2. Blow
      Using open mouth, pinch nose or seal with cheek until chest rises.
      For children, cover nose and mouth with mouth.

   3. Look for chest to fall.
      Listen and feel for air escaping from mouth and nose.
      Repeat steps 2 and 3; adults 15 times/minute, children 20 times/minute.
4. Recovery
When breathing begins, place them on their side, head back, face slightly to the ground.

C. CIRCULATION
If a person does not immediately respond, it is possible that they may need emergency support of the circulation. This can only be carried out by someone who has been trained in External Cardiac Compression.

DON'T PANIC
CALL FOR EMERGENCY HELP
SKILLS UNIT 8: SPECIFIC OCCUPATIONAL HEALTH & SAFETY ISSUES

TOPIC: Emergency Procedures

OBJECTIVE: To analyse causes of accidents in the workplace and to suggest prevention measures

Name: 
Class/Group: 

TASK 8.11

THE CAFE BOUFFE

Maurice, the chef, picks up the hand beater to whip a sauce. His hands are wet, but he is in a hurry so he doesn't dry them. There are only two single power outlets in the kitchen. Paul, the assistant, had used the blender on the stainless steel bench, and left it switched on and plugged in. Maurice grabs the blender plug and pulls it out. He grips the hand beater plug in his hand. His grip is less secure because his hand are wet.

As he pushes the plug in, Maurice's hand slips and his fingers come into contact with the plug pins. His other hand is flat on the bench.

Maurice instantly comes live. The muscles of his forearm go into strong involuntary flexing. For a second his fingers are locked to the plug. The violence of his body spasms throws him back. He cries our loudly. His head cracks against the handles of the stove.

Maurice lies on the floor, convulsing slightly. He is blue in the face. His eyes are wide and staring. He does not seem to be breathing.

Paul stands back in horror. He calls for help.

1. List five factors which contributed to the accident.

_____________________________________________________________________
_____________________________________________________________________
_____________________________________________________________________
_____________________________________________________________________
_____________________________________________________________________
2. What could be done in this case to prevent a similar accident? (List at least three measures)

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________
1. Factors contributing to the accident:
   . not enough power points
   . lack of safety devices built in to electrical circuits
   . use of electrical appliances on a metal
   . no training of workers in first aid
   . rushed work
   . insufficient care with work.

2. How to prevent a similar accident:
   . install one power point per appliance, preferably permanently wired
   . fit earth leak detectors to all circuits
   . use electric appliance only on non-metal benches
   . train all staff in first aid
   . check all hazards in the kitchen
SKILLS UNIT 8: SPECIFIC OCCUPATIONAL HEALTH & SAFETY ISSUES

TOPIC: Emergency Procedures

OBJECTIVE: To list the action to be taken in an emergency involving fire in the workplace

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**Name:**

**Class/Group:**

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**TASK 8.12**

Consider the following situation.

You arrive at work early. When you get there the only other person in the building is the kitchen hand.

As you are about to commence your tasks you notice a strange smell coming from the storeroom where the various cooking ingredients are kept.

You open the door and find a fire burning. It looks and smells like cooking oil. The fire already seems to be well established.
**TASK 8.12 (Cont’d)**

You shut the door and quickly consider what to do.

The kitchen has two extinguishers, a Carbon dioxide C0₂ (Red with Black Band) and Water (Red).

There is no fire alarm in the kitchen although there is a telephone.

List **in order** the things that you should do in this situation.

1. 

2. 

3. 

53
ASSESSMENT: TASK 8.12

Correct procedures, in order, are: Score

1. telephone fire brigade +2
2. tell kitchen hand to evacuate (and wait outside to direct fire brigade when they arrive) +2
3. fight fire with CO₂ extinguisher +4
4. evacuate if fire not controllable +1

Score for 1 to 3 in correct order. +2

TOTAL 11

Other possible procedures and scores:

- ringing someone other than the fire brigade for assistance +1
- telling kitchen hand to ring for assistance +1
- telling kitchen hand to fight fire (while you ring for assistance) +1
- warning others in building to evacuate (there is nobody besides yourself and kitchen hand) 0
- fighting fire with extinguisher (unspecified) 0
- fighting fire with water extinguisher -2
- fighting fire with both extinguishers -2
SKILLS UNIT 8: SPECIFIC OCCUPATIONAL HEALTH & SAFETY ISSUES

TOPIC: Emergency Procedures

OBJECTIVE: To analyse causes of accidents in the workplace and to suggest prevention measures

| Name: __________________________ |
| Class/Group: ____________________ |

**TASK 8.13**

**THE FORMCRAFT KITCHEN**

The general cleanliness in the Formcraft kitchen is not up to standard. The cook says he is short staffed.

One of the areas not attended to enough is the chip fryer.

In the early afternoon, Peter the cook, and Ray, the casual assistant, are preparing for the afternoon session. Peter is reheating the chip oil when it suddenly catches fire.

Peter reaches for the BCF extinguisher, on the other side of the bench. The rubbish bin is in the way. Peter shouts at Ray, who grabs the extinguisher, but cannot operate it. He keeps pulling at the trigger with no success.

The extractor filter over the stove is greasy and starts to smoke. Finally it catches alight. The flames leap beyond the extractor duct and scorch the paint on the walls. The doors are all closed and the fumes and smoke make it difficult to breathe.

Peter finally gets hold of the extinguisher and sprays around the stove.

Marilyn, in the servery outside, smells smoke and opens the kitchen door. She shouts at Peter and Ray to get out. Ray rushes for the door. Peter continues with the extinguisher.

The fire starts to rage. The extinguisher is empty. Marilyn is shouting at Peter.

One of the workers from another part of the factory rush in with another extinguisher and aims it straight at the seat of the fire. Flames explode everywhere.

1. (a) Why did the flames explode when the extinguisher was aimed straight at the seat of the fire?
TASK 8.13 (Cont'd)

(b) Which one of the following types of fire extinguishers should NOT be used to put out an oil fire:
- Water (including soda acid)
- Foam
- Carbon Dioxide (CO₂)
- Vaporising Liquid
- Dry Chemical Powder

(c) Which two of the following types of fire extinguishers are dangerous if used on an electrical fire:
- Water (including soda acid)
- Foam
- Carbon Dioxide (CO₂)
- Vaporising Liquid
- Dry Chemical Powder

(d) What are the three elements necessary for fire?

(e) What happens if one of these elements is removed?

(f) How can the oxygen be removed from a fire like the one described here?
2. What were the factors contributing to the Formcraft fire becoming a major problem (list at least 6)?

3. (a) What procedure should Peter have followed immediately the fire broke out?

(b) Give three inexpensive and easy things that would have decreased the danger, had they been in place.
1. (a) The fire exploded because the worker used a water (or soda acid) fire extinguisher. When the liquid hit the burning oil, it caused a reaction that sprayed the oil around the kitchen and spread the flames.

(b) A water (including soda acid) extinguisher should not be used on an oil fire.

(c) The two types of extinguishers that are dangerous to use on electric fires are Water (including soda acid) and Foam.

(d) The three elements necessary for fire are heat, oxygen and fuel.

(e) If one element is removed the fire will go out.

(f) Oxygen can be removed by covering the fire; a blanket is useful for covering a fire to extinguish it.

2. The factors which contributed to the fire becoming a major problem were:
   - there was no fire blanket within reach of the stove
   - the fire extinguisher was difficult to reach
   - there was no sprinkler system
   - the casual kitchen worker, Ray, didn’t know how to use the extinguisher
   - the kitchen cleanliness was poor; the exhaust duct was dirty
   - there was no proper fire procedure followed; the switchboard wasn’t notified, and therefore the fire brigade was not called when it should have been
   - when Marilyn opened the door the draught fanned the flames
   - the second fire extinguisher was the wrong type and made the situation worse.
3.(a) Peter is the senior person in the kitchen. Immediately the fire broke out, he should have done the following:

. made sure the switch was notified
. tried to control the flames, by covering or using the extinguisher
. made sure that everyone was safe.

(b) THE FORMCRAFT KITCHEN NEEDED A SAFETY AUDIT TO CHECK A NUMBER OF POTENTIAL SAFETY PROBLEMS. THIS IS SOMETHING THAT CAN BE RAISED WITH THE MANAGER OR THE OCCUPATIONAL HEALTH AND SAFETY COMMITTEE.

THERE ARE SOME THINGS THAT COULD HAVE BEEN DONE IMMEDIATELY TO LESSEN POTENTIAL FIRE DANGER.

Inexpensive things that could have lessened the danger are:

. get a fire blanket and hang it on the wall, in reach of the stove
. set out procedures, to be followed in case of fire, and make sure everyone knows them
. move the extinguisher to a more accessible place, or get another
. clean around the stove area.
## Standards

### Task 8.1

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<tr>
<td>Less than 5 movements</td>
<td>Not yet achieved</td>
</tr>
</tbody>
</table>

### Task 8.5

<table>
<thead>
<tr>
<th></th>
<th>Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>All 9 items of information</td>
<td>Credit</td>
</tr>
<tr>
<td>Name of one or two organisations or people Freda might go to name of person and/or title of their position phone number explanation of why they have authority</td>
<td>Pass</td>
</tr>
</tbody>
</table>
SKILLS UNIT 8: SPECIFIC OCCUPATIONAL HEALTH & SAFETY ISSUES

STANDARDS

Less information than is required for pass = Not yet achieved

Question 4
All three items of information = Credit
Answers a and b provided = Pass
Only one answer = Not yet achieved

Question 5
All three answers provided, details included = Credit
All three answers, no detail = Pass
Only one or two answers provided = Not yet achieved

TASK 8.6 Questions 1 & 2
No standards

Question 3
All 4 items of information = Credit
Name of person and/or title of their position
phone number
explanation of why they have authority
less information than is required for pass = Not yet achieved

Question 4
6 or 7 correct = Credit
4 or 5 correct = Pass
Less than 4 correct = Not yet achieved

Question 5 & 6
7 or 8 correct = Credit
6 or 7 correct = Pass
Less than 6 correct = Not yet achieved
SKILLS UNIT 8: SPECIFIC OCCUPATIONAL HEALTH & SAFETY ISSUES

STANDARDS

TASK 8.7  Question 1
3 factors identified = Credit
2 factors identified = Pass
1 factor identified = Not yet achieved

Question 2 & 3
Both correct with full details = Credit
Both correct, no detail = Pass
Only one correct = Not yet achieved

Question 4
6 to 8 points identified = Credit
4 or 5 points identified = Pass
4 or less points = Not yet achieved

TASK 8.8 All 3 answers correct = Credit
Answers 1 and 2 correct = Pass
Only 1 answer correct = Not yet achieved

TASK 8.9  Question 1-3
7 or 8 factors identified = Credit
5 or 6 factors identified = Pass
Less than 5 factors identified = Not yet achieved

Question 4
8 to 10 sound suggestions = Credit
5 to 7 sound suggestions = Pass
Less than 5 sound suggestions = Not yet achieved
SKILLS UNIT 8: SPECIFIC OCCUPATIONAL HEALTH & SAFETY ISSUES

STANDARDS

TASK 8.10 Questions 1 & 2
3 answers correct = Credit
First and second answers only correct = Pass
Only one answer correct = Not yet achieved

Question 3
Full demonstration or explanation of resuscitation = Credit
Incomplete demonstration or explanation = Not yet achieved

TASK 8.11 7 or 8 items listed = Credit
5 or 6 items listed = Pass
Less than 5 items listed = Not yet achieved

TASK 8.12 Scores of 10 or more = Credit
Scores 5-9 = Pass
Scores less than 5 = Not yet achieved

TASK 8.13 Question 1
All 6 answers correct = Credit
5 answers correct = Pass
4 or less answers correct = Not yet achieved

Question 2
6 or more factors identified = Credit
4 or 5 factors identified = Pass
3 or less factors identified = Not yet achieved

Question 3
5 or 6 points listed = Credit
4 points listed = Pass
3 or less points = Not yet achieved