4.2 WRITING ACTIVITIES

4.2.1 INTRODUCTION

Activity is the most important part of learning. Even to learn something as basic as the days of the week requires the learner to actively repeat the days in order to remember them. As learning tasks become more complex (e.g., playing a piano sonata or solving complex equations), activity becomes more and more essential to learning.

This need for a high level of activity is a problem for instructional designers of print and web materials since both media are essentially passive. Much effort is needed to overcome the problem of passivity. This part looks at how to do that.

Issues for instructional designers

1. Why do I need activities in self-instructional texts?
2. How many activities are needed?
3. What are the various types of activities?
4. How do learners use activities?
5. What is the best structure for an activity?

4.2.2 WHY DO WE NEED ACTIVITIES IN SELF-INSTRUCTIONAL TEXTS?

We know from both cognitive and constructivist theories of learning that learner activity plays an important part in successful learning. This point is also emphasised between deep learning (learning to understand) and surface learning (learning for rote recall) (Marton and Säljö, 1976).

Numerous laboratory studies have demonstrated that inserting questions before, within and after texts can improve learning in various ways. (A useful summary of these studies is provided in Lockwood [1992].) These studies, however, suffer from being carried out in artificial conditions, so it is hard to generalise from them to real learners on real ODL courses. Despite these reservations, ODL instructional designers are unanimous in their belief that promoting active learning is a key part of their task. Furthermore, learners seem, on the whole, to consider that they benefit from such activities (Lockwood, 1992).

Other useful supporting evidence can be found from research on traditional lecturing. In a review of all the studies comparing lecturing with other teaching methods, ‘other methods’ were generally found to be more effective than lectures. On the whole, those ‘other methods’ were more active than attending a lecture. For example, where the aim of a piece of teaching was to ‘promote thinking’, discussion was more effective than lectures in 91% of studies (Bligh, 1998).

At a practical level, Rowntree reminds us of two important reasons for including activities in ODL texts: 'They are meant to keep learners purposely engaged with the material. … Without such activities, our learners might assume that the only objective was to memorise the information we set before them' (Rowntree, 1990).

4.2.3 TERMINOLOGY IN ACTIVITIES

Some writers use other terms than 'activity', including 'in-text questions' and 'self-assessment questions'. Sometimes these words seem to be synonyms for 'activity'; at other times a distinction seems to be intended. In this handbook, only two terms – activities and self-assessment questions – are used to distinguish between two very different processes: formative learning (done in activities) and summative learning (done in self-assessment).

4.2.4 TYPES OF ACTIVITY

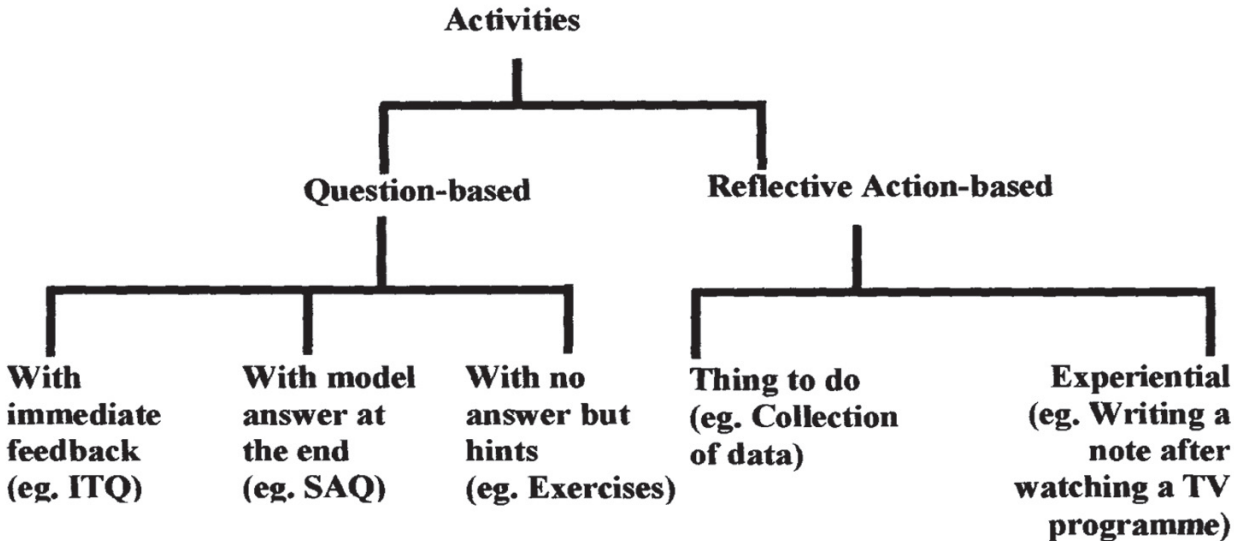
There is very little agreement among researchers over how best to classify activities.

Rowntree (1990) offers a simple list of five types:

- report own observations,
- restate facts, principles, etc.,
- distinguish between examples of concepts and principles,
- give own examples, and
- apply new concepts and principles.

A more sophisticated set of distinctions is offered by Indira Gandhi National Open University (IGNOU) (Mishra and Gaba, 2001), as shown in Figure 8.

FIGURE 8. The IGNOU taxonomy of activities (ITQ, In-text question; SAQ, Self-assessment question)



And a much more complex view is provided by Kember and Murphy (1994), who distinguish between 34 types of activity in learning materials and a further 19 types for group meetings.

4.2.5 HOW MANY ACTIVITIES ARE NEEDED?

To answer this question, it is necessary to return to the distinction between two approaches to ODL course design: tutorial-in-print and reflective action guide (see section 1.4, 'Types of ODL Instructional Design').

Tutorial-in-print

In the tutorial-in-print approach, there are usually well-defined learning objectives and the course materials seek to teach a well-defined body of knowledge. In these circumstances, the following guidelines are a good basis for beginning to consider how many activities are needed:

- Every learning outcome should have at least one activity.
- Most learning outcomes should have several activities.
- Learning outcomes that have more than 10 or so activities are perhaps too large and should be split into smaller outcomes.

Reflective action guide

If you are writing a reflective action guide, the number of activities is much harder to predict. That is because the learning outcomes tend to be broader and more personal and the knowledge

involved less well defined than for a tutorial-in-print. As a result, the activities tend to be longer, more discursive and often related to several learning outcomes at once. The following guidelines will help you judge how many activities are needed:

- Every learning outcome should be covered by at least one activity. (Note: This does not mean that every outcome has to have its *own* activity.)
- It is better to have too many activities than too few.

4.2.6 WHAT TYPES OF ACTIVITIES ARE THERE?

There are many types of learning activities. A sample list is shown in Table 15.

TABLE 15. A possible typology of activities

Type	Outline example
1. Report on own observations or experience	From your own experience, recall some occasions when you found it difficult to control some pupils in your class. (For a course on classroom management techniques)
2. Recall what has been taught	What do the initials ABC stand for in resuscitating a person? (For a course on first aid)
3. Give or explain examples	Which of the following are good examples of good irrigation practice and why? (For a course on basic irrigation techniques)
4. Give examples from own experience	From your own experience, give three examples of effective ways of managing your time. (For a time management course)
5. Apply new concepts or principles.	Convert the following passage from direct to indirect speech. (For a course on minute taking)

Source: Based on Rowntree (1990)

4.2.7 EXAMPLES OF ACTIVITIES

Activities based on the learner's experience

EXAMPLE 19. Sample activity based on the learner's experience (a)

ACTIVITY 1

Try to come up with your own ideas in order to answer the question above. Make notes in your journal about ways to address the following in distance courses:

(1) oral traditions
(2) learning as a group affair
(3) rote learning as a cultural norm

I hope that you have been able to come up with a number of ideas that illustrate that a well-designed course at a distance can address cultural differences. Here are some real-life examples.

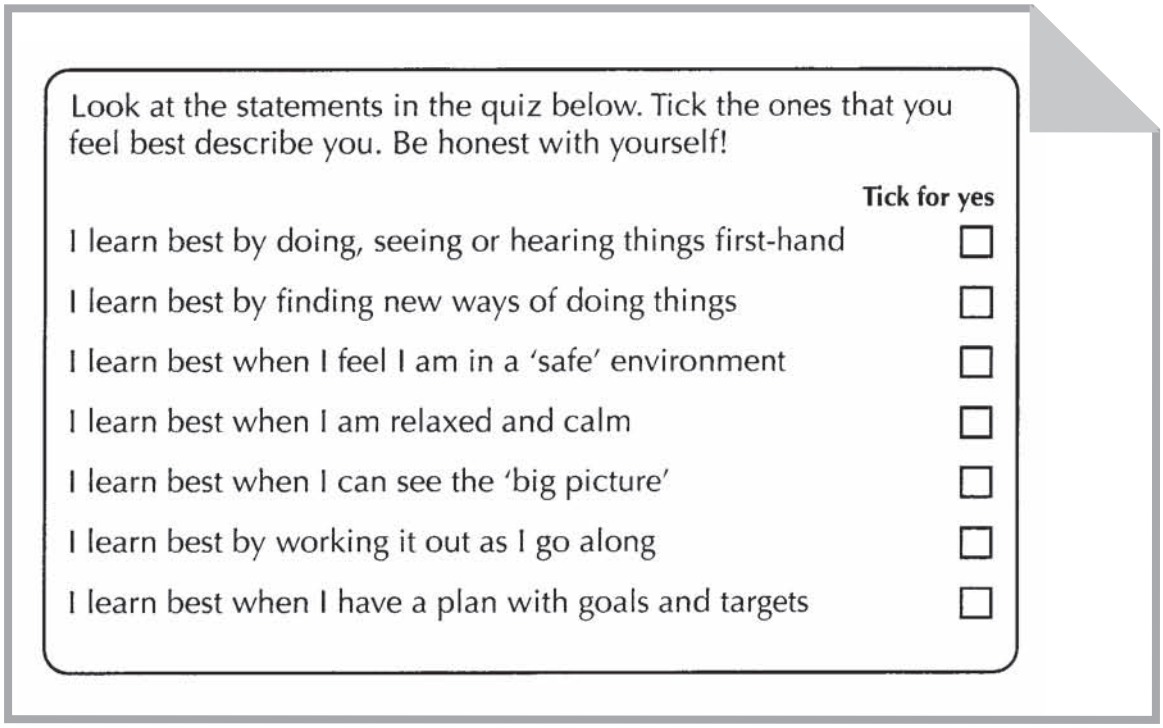
*In **Guyana**, learners who live far away from the institution, use audio-conferencing to supplement print materials. This is done because the Guyanese culture has a strong oral component. The course integrates the print and audio conferencing meaningfully.*

*The **University of the South Pacific** also uses audio-conferencing to create communities of learners at a distance, because its learners come from countries where there is a strong tradition of group interaction for learning.*

*And in **India** there is a traditional* tendency *(habit) towards passive learning. Thus the Indira Gandhi National Open University uses carefully designed interactive print materials together with face-to-face support to stimulate new approaches to learning (COL 1995:11).*

Source: *Introduction to Materials Development in ODL.* ODL103-H, p.3 (UNISA)

EXAMPLE 20. Sample activity based on the learner's own experience (b)



Look at the statements in the quiz below. Tick the ones that you feel best describe you. Be honest with yourself!

	Tick for yes
I learn best by doing, seeing or hearing things first-hand	☐
I learn best by finding new ways of doing things	☐
I learn best when I feel I am in a 'safe' environment	☐
I learn best when I am relaxed and calm	☐
I learn best when I can see the 'big picture'	☐
I learn best by working it out as I go along	☐
I learn best when I have a plan with goals and targets	☐

Source: *Introducing Counselling Skills* (National Extension College)

Activities to help learn principles and concepts

EXAMPLE 21. Sample activity to practise using principles

ACTIVITY 1.3

STUDY pars 2.20–2.31 of the textbook and then do the following:

1 List two exceptions to the general rule that a partnership is not regarded as a separate entity. Write these exceptions down.
2 Rhamjee, Pule and Constance formed a partnership. Rhamjee then becomes insolvent and his estate is sequestrated**.** Pule and Constance want to know the effects of Rhamjee's insolvency on the partnership. They come to you for advice.

Make sure that you understand the legal nature of a partnership before you start answering this question. You should tell Pule and Constance that the partnership estate and their personal estates will be sequestrated, but that Rhamjee's creditors will first be paid from his personal estate before the trustee will look at the partnership estate. A further consequence is that the partnership will dissolve, since the insolvency of one of the partners is a ground for the dissolution of a partnership. I will tell you more about this in study unit 4.

Source: *Entrepreneurial Law*. MRL101F, p. 4 (UNISA)

EXAMPLE 22. Sample activity to help learners apply new concepts

ACTIVITY 2

Tick the appropriate box to say which of the following are assets and which are liabilities.

	Asset	Liability
A car	❑	❑
A bank loan to buy the car	❑	❑
Office furniture	❑	❑
Raw materials	❑	❑
Debt owed for raw materials bought	❑	❑
A building	❑	❑
The mortgage used to buy the building	❑	❑

Compare your answers with ours, at the end of this module.

Source: *Essential Book-Keeping* (National Extension College, Cambridge)

Planning activities

EXAMPLE 23. Sample activity based on action-planning

How adults learn

Introduction

Our knowledge of how adults learn is, to say the least, incomplete. It is not even clear that all adults learn in the same way. At present, the best we can do is to set out what seem to be the most-widely accepted characteristics of adult learners and then to deduce from these what seem to be the guiding principles for the design of post-school learning materials. Whatever the weaknesses of this approach, at least at the pragmatic level, designers who follow these guidelines consistently produce ODL courses that lead to high quality courses.

Issues for instructional designers

1. How are adult learners different from school-age learners?

2. What implications do these differences have for instructional design?

Characteristics of adult learners

Various writers have maintained that adults possess certain characteristics that affect how they approach learning and how they learn. Perhaps the most commonly quoted summary of these ideas is that of Knowles (1990), who identifies six characteristics of adult learners:

1. The need to know why they are learning

School children may accept the school curriculum without question, treating it as part of the 'natural' world of being a child. Adults are less accepting and, when faced with a new course or curriculum are more likely to ask questions like 'How will this help me in my job?' or 'How will this help me bring up my children?'

This leads to an important observation about adult learning: adults are likely to put more effort into a task if they think that they will benefit from it. This implies that ODL curricular should concentrate on what is beneficial to adult learners, i.e. what can be practicably applied at home and at work.

2. Adults see themselves as responsible, self-directed persons

Adults tend to see themselves as being responsible for directing their own lives: deciding what job they want; deciding how to bring up their children; deciding what leisure pursuits they wish to follow. In education, this manifests itself as a desire to make their own choice of courses and to exercise some autonomy within a course. In educational terms, we can say that adults like to set their own goals and choose their own learning tasks. This criterion is hard to meet when designing ODL courses: materials-based courses are necessarily more pre-prepared and more rigid than courses delivered in a classroom.

Practical activities

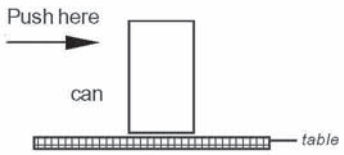
EXAMPLE 24. Sample practical activity

Practical Activity taken from Physical Science IGCSE

When does an object topple over?

What you would need:
1 empty can
sand

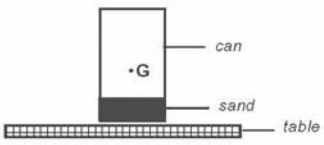
What you would do
Place the empty can on a table and try to push it over, by applying the force at the top as shown.



Let us look at some positions of the can.

The can topples over when the vertical line through the centre of mass falls outside its base!!

Place some sand inside the can. Try to push it over. Did you feel that it is much more difficult to make it topple over? Why?
The centre of mass was lowered by adding sand to the can.



Now try the next self mark activity to see if you understand the Centre of Mass.

Source: Namibian College of Open Learning (NAMCOL)

Reading activities

In study guide ODL courses, activities are often built around readings of the accompanying texts.

EXAMPLE 25. Sample reading-based activity

3.4 Liability of Partners

Activity 3.6

STUDY pars 5.32–5.34 of the textbook and write down the difference in liability before and after dissolution of the partnership.

In principle partners are jointly and severally liable for partnership debts. The meaning of joint and several liability can best be explained by way of an example: Say a partnership has three partners, namely, Martin, Kutlwano and Lesedi. If Kutlwano, acting on behalf of the partnership, undertakes to pay Pick and Choose CC the sum of R600 monthly for the electric stove, Kutlwano binds herself (as principal) to pay Pick and Choose CC the said sum, whilst she also binds Martin and Lesedi (acting as their agent) to pay Pick and Choose CC R600 per month. Consequently, Pick and Choose CC may claim the R600 from Kutlwano, or it may claim the R600 from Lesedi, or it may claim the R600 from Martin. Alternatively, it may sue Kutlwano, Martin and Lesedi together for the R600. In other words, the most that it can claim is R600 and it may sue any of the partners or all of them together for this amount. If Pick and Choose CC decides to claim the whole amount of R600 from Kutlwano only, she may recover R200 from Martin and R200 from Lesedi.

Source: *Entrepreneurial Law*. MRL101F, p. 22 (UNISA)

Scenario activities

A very common type of activity involves tasks based on a given scenario.

EXAMPLE 26. Sample scenario-based activity

Read the scenario below and then answer the following questions:

1. In planning his changes, what things did Robert Ruthless omit to do?
2. What factors might explain the problems with the computer system, staff absences and resignations?

If Robert Ruthless had called you in at the start to help him plan a change programme, what advice would you have given him?

Robert Ruthless had decided to re-organise the sales and marketing office. Ever since he could remember, it had been organised around sales areas. As the product range had grown and the products had become more complex, he saw staff having more and more difficulty coping with the technical aspects of what they were selling. The solution came to him in a flash: re-organise the staff around product groups. Since the sales software was area-based, he thought this was a good time to have a new computer system; staff were always telling him how antiquated the current system was.

So, Robert closed his office door, wrote a specification for the new system and sent it off to his pet ITC company. Whilst the programmers got to work on the new system, Robert planned a high-powered presentation on his new working arrangements and wrote a detailed staff manual.

A few weeks later, he was ready to announce the changes. In great excitement, he went through his presentation. At the end there was silence – not a question or comment.

Not long after, Robert was off sick for a long time. From the first day of the new system, everything seemed to have gone wrong: the staff had endless problems with the computer system; staff absence seemed unusually high; there had been several unexpected resignations; and customer complaints were at record levels.

Source: *Entrepreneurial Law*. MRL101F, p. 35 (UNISA)

4.2.8 ACTIVITY TASKS

The precise task set can be in one of many formats, such as:

- a short answer task
- an extended answer task
- a true-false task
- a multiple-choice task
- a matching task
- a fill-in-the-blank task
- a 'put in order' task
- a complete the graph/diagram/table task
- a create something task (e.g., type a paragraph of text using your word processor)
- a collect data task (e.g., observe traffic, interview a person).

The variety is limited only by your imagination.

Ideas for activities

A good source of examples of a wide range of activities is Kember and Murphy (1994).

4.2.9 WHAT IS THE BEST STRUCTURE FOR AN ACTIVITY?

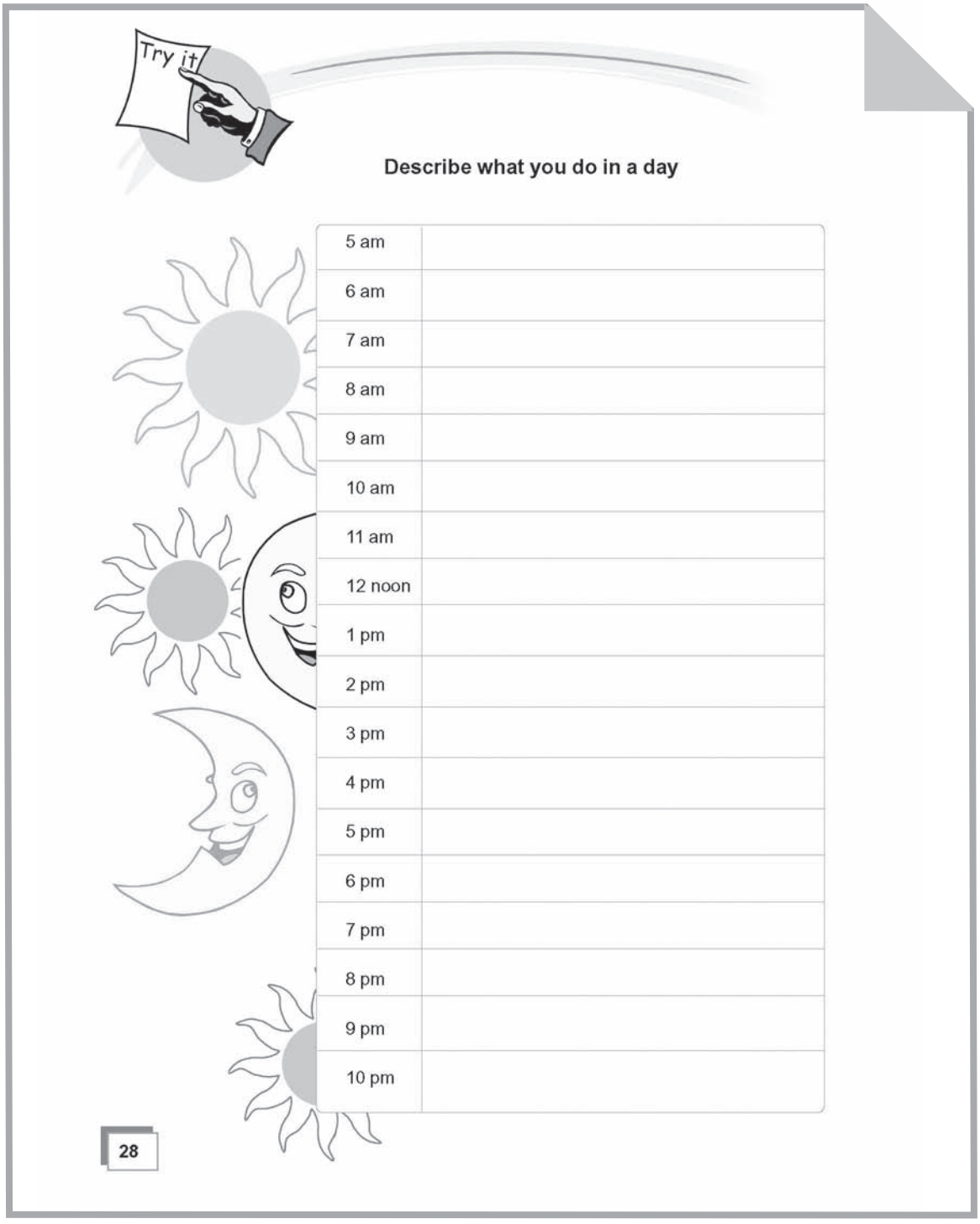
Any casual survey of a range of ODL materials will reveal a wide range of approaches to the precise format of an activity. In some materials, an activity is no more than a question; in others it is an elaborately developed task. Lockwood (1992) has argued that the research that he reviewed points towards a particular recommended format for ODL activities (Figure 9). (The example in the figure is based on an activity to teach the use of apostrophes with singular words.) Each feature of the format in Figure 9 follows from one or more of the research results that Lockwood reports and, hence, there are good reasons to believe that this format should be adopted.

FIGURE 9. A recommended format for activities

Activity 1: Apostrophes with singular words	**Purpose of this element:**
This activity will help you improve your use of apostrophes to show possession.	Motivational introduction
Rewrite each of the following to use an apostrophe. We've done the first one for you. 1. the palace of the Queen 2. the book of my friend 3. the computer of Charles 4. the surface of the Earth	Task/ instructions
1. the Queen's palace_____ 2. _____ 3. _____ 4. _____	Answer grid and example if needed
Take no more than 5 minutes over this.	Time guide
Feedback to Activity 1 Your answers should have been as follows: 2. **my friend's book**. If you wrote 'my friends' book' then your answer refers to a book owned by more than one friend. 3. **Charles' computer** or **Charles's computer**. If you wrote 'Charle's computer' then you should note that the apostrophe never goes inside the original word. It is always after the word. 4. **the Earth's surface** If you wrote 'the Earths' surface' then you are referring to more than one Earth.	Feedback Includes comments on likely wrong answers

Three examples of answer grids are given in Example 27, Example 28 and Example 29. In each case, the answer grid both helps learners think clearly about the task to be done and provides them with clear guidelines for the structure of their answers.

EXAMPLE 27. A simple answer grid



Source: Institute for Adult Basic Education and Training (UNISA)

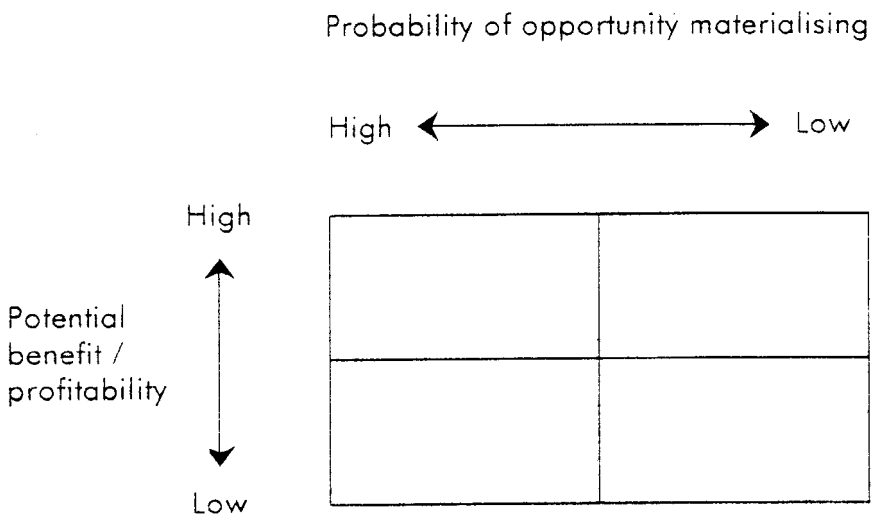
EXAMPLE 28. Sample answer grid that structures the learner's thinking

ACTIVITY 3: Using the opportunity matrix

See if you can label the quarters in the matrix in Figure 2, using the same three labels (high priority, low priority and zone of uncertainty) as in the threat matrix.

This activity should not take you longer than about five minutes.

Figure 2: Opportunity matrix

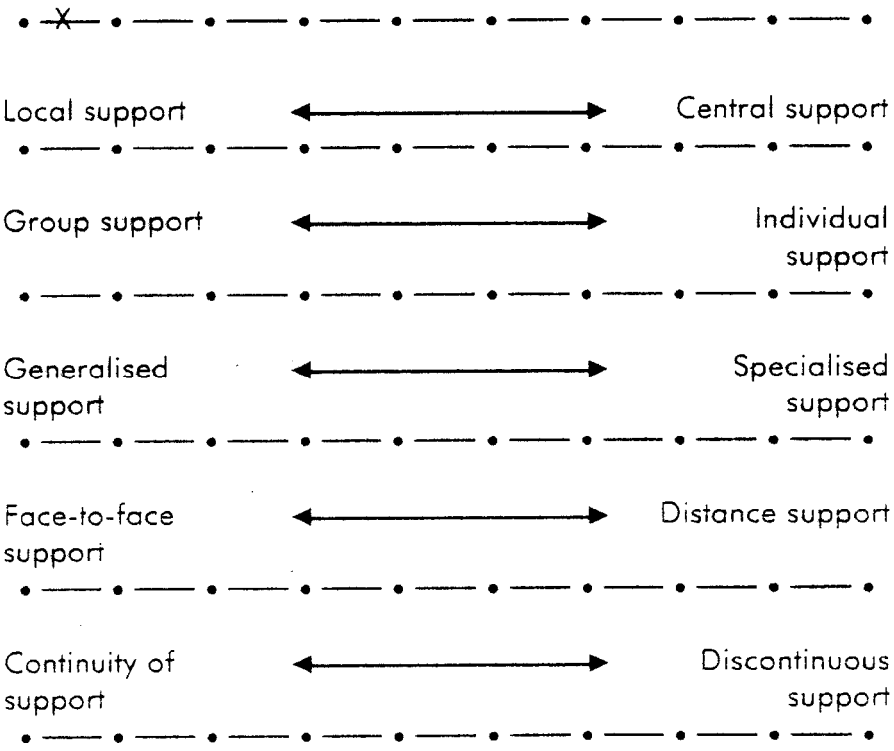


Source: *Introduction to Distance Education*. M2 (International Extension College, Cambridge)

EXAMPLE 29. Sample use of an answer grid in an activity

Activity 4: Where does your institution fit?

Considering each of these dimensions separately, *take a few minutes – no more than ten in total* – to plot on the following diagrams where your institution's provision of learner support would best be placed. For example, on the first dimension, if your institution registers learners and provides all tutorial and other services through regional offices, leaving the learner with little or no contact with headquarters, you would place an 'X' on the far left end of the first line, like this:



Source: *Introduction to Distance Education*. M2 (International Extension College, Cambridge)

4.2.10 HOW DO LEARNERS USE ACTIVITIES?

Although some students report not doing activities, there is good evidence from various studies that most students do perform them. To maximise activity completion, it is important to make sure that answer grids are provided and that activities are not more demanding than is needed (see Table 16). It seems likely, also, that activities are more likely to be completed if they are interesting. There is also emerging evidence that, on web-supported courses, activities that require learners to report their results to an online group are more likely to be completed than when the same task is not for reporting.

TABLE 16. Some key findings on learner use of activities (Lockwood, 1992)

Finding	Implications for instructional design
The activities at the beginning of a course are used by more students than those later in the course, especially when students are short of time.	• be careful not to put too much material into the course • be careful that the later units of a course are not longer than the early ones
Including an answer grid as part of an activity leads to activity completion levels of 80–100%. Not having an answer grid gives completion levels of 30–50%.	• provide an answer grid when it is practicable to do so
The more demanding the activity, the lower the response.	• be careful not to make activities more demanding than they need to be for learners to achieve the relevant learning objective.

4.2.11 FEEDBACK IN ACTIVITIES

An important function of activities is to give feedback to the learners. In the classroom, the teacher provides feedback in response to learners' questions, errors and so on. It is hard to reproduce the same level of feedback in ODL materials, and especially so in print, but it is essential to look for ways of doing so. (Feedback is more easily incorporated into computer-based courses.) The prime method of providing feedback is through activities, although some feedback comes from tutors and fellow students.

According to Ausubel and Robinson (1971), feedback is thought to be most effective when it:

- is continuous (especially for concept learning),
- is immediate (to prevent errors becoming embedded),
- is full (not just an answer of ‘right’ or ‘wrong’), and
- is explained (learners are told why their answer was wrong or what the logic is behind the correct answer).