Working in Classrooms

Teaching, Time and Space

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Editor | John Gultig

The **SAIDE** *Teacher Education Series*

Saide
South African Institute for Distance Education

Working in Classrooms

Teaching, Time and Space

Learning Guide

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Preface

The SAIDE Teacher Education Series

Working in Classrooms is one of the modules in the SAIDE Teacher Education Series developed between 1998 and 2002.

This comprehensive multi-media series comprises:

- Learning Guides, which operate much as a teacher does in structuring learning, explaining concepts, exploring debates in the field, and direct readers to other parts of the module at appropriate times;
- Readings which function as a 'mini-library' of edited readings for further exploration of concepts, issues and debates raised in the Learning Guide;
- An audiotape which use interviews and classroom events to develop the issues raised in each of the modules (not for all modules)
- A video which bring issues and debates from the modules to life (not for all modules).

Although designed to support the learning guides, the readings, as well as the audio and video resources could also be used independently of the learning guides. Used creatively, they provide valuable resources to support existing teacher education programmes.

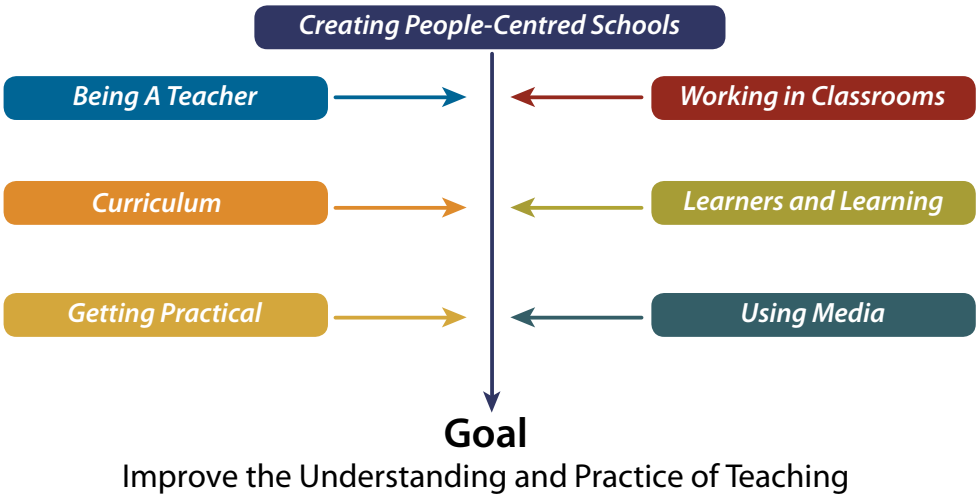
This set of learning guides with accompanying readers develop teachers' abilities to use theory in practice; and to understand, intervene in and improve their practice as teachers. The diagram below shows the inter-relationships of the modules in terms of curriculum coverage.

From within a framing context generated by Creating People-Centred Schools

- ***Being a Teacher*** and ***Working in Classrooms*** cover the professional and classroom contexts within which teachers practise
- ***Curriculum*** and ***Learners and Learning*** provide a theoretical understanding of resources or tools teachers may draw on
- ***Getting Practical*** and ***Using Media*** draw on the above in guiding practice.

Curriculum and ***Getting Practical*** are available in second editions from Oxford University Press. The other titles are available on www.oerafrica.org.

Inter-Relationship of SAIDE Teacher Education Modules



Components of the Working in Classrooms module

Working in Classrooms looks at how arrangements of time and space shape school teaching; and at how teachers, principals and government departments of education shape the time and space for learning in schools. The module is theoretically informed by an understanding of teaching as a practice, and is practically useful in addressing the question of how teachers might best organise classroom space and time to promote systematic learning.

For students in initial teacher education, the module develops very useful understandings of the contexts in which they will practice; for practising teachers, it provides rich material for reflecting on their own experience. For all, it provides insights that are valuable for teaching and that may well disturb our understanding of basic issues we assume or just take for granted!

Learning guide

The different sections in this module present a coherent progression. However, these five sections are downloadable as individual units.

1. Section One: About this module
   This section outlines the aims and structure of the module and explains how the writers intended the module to be used.
2. Section Two: Time and space in teaching
   This covers what is distinctive about teaching. A useful conceptual framework is developed to help us to think about the nature of teaching as a practice that shapes, and is shaped by, time and space. The framework is, in fact, crucial for any understanding of teaching, and for using time and space for different activities.
3. Section Three: School time and space
   Here we encounter the institutional context that shapes teachers' work. We deal with what is 'given' to teachers: departmental regulations; the school timetable; classrooms well or poorly equipped, and so on.
4. Section Four: Classroom time and space
   This section deepens our understanding of how teachers use time and space to enable systematic learning. How can teachers exercise their agency and professional responsibility in working appropriately with the time and space available to them?
5. Section Five: Making learning time and space for large classes
   The focus here is on strategies for managing the challenge of working with large classes in crowded classrooms. We also consider the importance of enabling learning beyond the classroom and outside of school time.

Readings

Although there are nine useful readings, the module prescribes only five; the other four are optional. As with other modules, the readings may be used independently in supporting other courses that already exist. There are three readings in each of the three sections:

→ Section One: School Time
→ Section Two: Time and Space for Learning and Teaching
→ Section Three: Teaching, Critical Reflection and Conceptual Space.

Not all the copyright holders of these readings have given permission to release them digitally, and so, although notes on all the readings are included, the full text is in some cases omitted.

The available readings can be downloaded from the Working in Classrooms module page on ***www.oerafrica.org.***

Video

Four video clips provide a lively stimulus for thinking about teaching strategies that promote effective learning.

1. The nature of time and space in society in general. A learner and a teacher encounter new arrangements of time and space on their first day at a new school.
2. Timetables and the question of how much classroom time we actually have for organising

teaching and learning. Teachers discuss various strategies, and we see a number of experiments in using classroom space in different ways.
3. After viewing a rather chaotic classroom in which things go wrong because of ineffective use of time and space, we see how teaching and learning can be much more purposeful in the same classroom – when time and classroom layout are used differently.
4. Teachers' use of time and space to meet particular needs and we see the necessity for teacher flexibility in organising learning in different situations.

The clips can be downloaded from the Working in Classrooms page on ***www.oerafrica.org***.

Acknowledgements

Working in Classrooms was developed through the Study of Education project managed by the South African Institute for Distance Education (SAIDE) and funded by the WK Kellogg Foundation. The series editor was John Gultig, and he and Mike Adendorff were critical facilitators of a lengthy process of curriculum and materials development led initially by Wally Morrow, and later by Shirley Pendlebury.

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SECTION ONE

About this module

Introduction 1.1

What is this module about?

Time and space are the medium of human existence. Everything we do happens somewhere and takes some time, perhaps a minute, perhaps an hour, perhaps years. All our projects and activities -large and small, serious and playful- are enabled and constrained by time and space. But this does not mean that we are somehow at the mercy of time and space. As human agents– that is as people able to take responsible action – we are able to organize time and space in ways that help us to do things better.

This module explores how *South African teachers* can reorganize the spaces in which they teach, and the way in which time is organized in their schools, to improve learning.

Like other human activities and practices, teaching is both enabled and constrained by time and space. ***Working in Classrooms*** looks at how arrangements of time and space shape school teaching, and at how teachers, principals, and government departments of education shape the time and space for learning at schools. For instance, a curriculum that requires teachers and learners to achieve outcomes like 'being able to solve problems through collaborative critical and creative thinking' makes very different demands on teaching and learning time and space than a curriculum that requires learning 'facts' by rote. All of you will by now be familiar with the idea of 'notional' time, or the call that more teaching happen outside classrooms, two ideas that weren't present in the rote-learning apartheid curriculum.

A key question in this module is how to arrange school and classroom time and space in a way that best enables teachers to fulfil the purpose of their practice namely enabling systematic learning. The question can't properly be answered without an understanding of teaching as a particular kind of *practice* constituted by concepts like *activities, intentions, agency, practices, formal purposes, and rules.*

This icon indicates the particular week of study in which you should begin working on the section it introduces.

How the module is organized

Section Two of the module builds a conceptual framework that enables us to think about teaching as a *practice* that shapes, and is shaped by, time and space. This framework is crucial for our understanding of situations and issues introduced in the subsequent sections of the module. But it is also crucial for *any* understanding of teaching. We hope that you will use the analysis and examples from Section Two as you work through other modules in the series and, more importantly, as you reflect on your own teaching and its special challenges.

Section Three provides the institutional context that shapes teachers' work. This is the organizations of time and space that are 'given' to teachers – the departmental regulations, the school timetable, classroom shapes and resourcing, and so on.

Section Four argues that these 'givens' can be changed by teachers. It helps deepen your understanding of how teachers can reorganize time and space to enable systematic learning; how teachers exercise their agency and professional responsibility in working appropriately with the time and space that are allocated to them.

Finally, **Section Five** focuses on the contextual challenge of working with large classes in crowded classrooms to achieve systematic learning. Section Five also looks at the importance of enabling learning beyond the classroom and outside of school time.

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1.2 What can you hope to achieve in this module?

To some extent, the answer to this question depends on who you are. Perhaps you are a student working towards a teaching qualification. Or perhaps you are an experienced teacher keen to improve both your qualifications and your teaching. You may even be a school principal who wants a better understanding of how arrangements of time and space affect the quality of teaching and learning at your school.

Regardless of whether you are a student teacher, an experienced teacher or a principal, you can expect to achieve the following learning outcomes from working through the module.

1 By the end of the module, you should have an understanding of:

- school teaching as a complex practice aimed at enabling systematic learning;
- how the practice of school teaching is shaped by the arrangements of time and space in schools;
- how disorderly arrangements of time and space prevent schools from fulfilling their institutional purpose of promoting and enabling systematic learning;
- teachers as agents who can take control of shaping classroom time and space to promote and enable systematic learning for different kinds of learners;
- teachers' responsibility in designing learning programmes that go beyond classroom time and space and that enable learners to organize their own environments for ongoing, systematic learning.

2 By the end of the module, you should be able to:

- analyze and interpret problems of teaching and learning that are related to arrangements of time and space;
- use your judgement in conceptualizing a learning programme that takes account of the time and space needed for different learners and different purposes;
- use critical and creative thinking to solve problems related to the arrangements of school time and space;
- organize learning time and space for your own studies.

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How to work with this module 1.3

What does the module consist of?

Working in Classrooms includes the following components:
- a learning guide;
- a reader;
- a videotape;
- a workbook.

Learning guide

This learning guide works in much the same way as a teacher does - structuring your learning, explaining new concepts, and encouraging your active participation through questions and activities. It will also tell you when and how to work with the module reader. Scan through the learning guide now. Do so by reading the main contents page and then each section's content page. This will give you an idea of what you will learn.

Reader

A reader, which is rather like a small personal library with carefully chosen and edited readings, will give you a richer and deeper understanding of the ideas and arguments presented in the learning guide.

Videotape

A videotape complements the learning guide by presenting different perspectives on school time and space. It provides you with visual illustrations of some of the key concepts in this module. You will make most use of it towards the end of the module.

Workbook

You will need a workbook, which will be your learning space for this module. This is where you will record your thinking and development, and where you will complete the activities set for each section. To make best use of the workbook as a learning space, you should try to set aside regular, uninterrupted time for recording your thoughts and completing the set activities.

How should you work through the module?

Consider the module as a conversation

We have written this learning guide in a way that invites you to participate in an ongoing and thoughtful discussion, with pauses for reflection and a range of activities to deepen your understanding. In other words, the learning guide is not a textbook with 'facts' and definitions to be learnt by rote. It will work best if you join the discussion actively - by thinking about the questions we pose and the points we raise, by completing the activities, and by inviting colleagues and fellow students to participate in critical discussion and reflection with you.

Try to relate theory to practice

You will notice that Sections Two to Five in this module begin either with examples from everyday life or with familiar scenes or situations in schools. From everyday

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examples and familiar teaching situations, we move on to conceptual analysis and theory. Several of the activities ask you to use concepts to illuminate aspects of your own practice. Other tasks aim to hone your analytical skills, without any direct reference to classroom practice.

Arrange time and space systematically for your own learning

Your workbook is your most important learning space for this module. It's up to you to choose and organize a workbook that best enables you to do the required activities in the module and to record your thoughts, questions, and observations. Either a file or a hardcover notebook would be suitable. You might find it helpful to divide the workbook into two main sections, a section for required activities, and a section for your own notes and reflections. You should write the date for each set of notes or reflections. In this way, you will have a record of how your understanding changes over time.

Use the reader as a 'mini-library' to deepen and widen your perspective

The reader has two kinds of readings: prescribed readings that are directly related to the activities in this learning guide and enrichment readings that will widen your understanding of time and space in teaching. Enrichment readings are optional. You don't have to read them to meet the requirements for the module. They are there to whet your appetite for later reading, when you want to widen your perspectives and perhaps only when you have worked through the module.

This module doesn't have the same number of readings for each section:

- Section Two has no set readings at all
- Section Three has several optional readings but no prescribed readings
- Sections Four and Five together have five prescribed readings. This means that you will have to set aside considerably more reading time for Sections Four and Five than for Sections Two and Three.

The importance of active learning

As you work through the learning guide, you will see that we advocate the idea that *new understandings depend on, and arise out of, action.* Because we firmly believe this, we have designed this guide to include many activities that we hope you, as the teacher-learner, will complete. Like all good learning materials, the guide will work best if you *engage systematically with the activities* that are set out for you here. If you don't do the activities, you will miss out on the most important part of the learning pathway we have developed for you.

Reading and writing activities

You will recognize these activities by this kind of icon in the margin next to them. The recommended time you should spend on each activity is also included.

Most of the activities in the Guide are *reading and writing activities*. It is important that you apply your mind to each one of them and answer the set questions in your workbook.

Follow the instructions given for each activity carefully. You may, for example, be asked to read an article from the reader, or to consider a set of issues raised in the guide from a particular perspective. Follow these instructions but also write down any other comments or thoughts that come to mind as you do each activity. In particular, think of how you can apply the new ideas in your teaching.

The activities you are asked to do are designed primarily to help you to learn something new, or to acquire a new understanding about something. As with the readings, we will sometimes ask you to go back to an activity you have done in your workbook and revise it in the light of the new understandings you have developed. Don't skip this step; it is a vitally important part of the learning process.

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Thinking activities

At various points in the learning guide, we ask you to *pause* and take some time to reflect on a particular issue. These thought pauses are designed to help you consolidate your understanding of a specific point before tackling the next section of the Guide. They deliberately try and slow you down!

One of the habits many of us develop through our involvement in a rote recall kind of learning is that we rush through things. Once we have read something, we believe we know it. This isn't true. While we may now recognize the idea, we probably don't really understand it in any detail. Work through this guide slowly and thoughtfully. Reread and rethink. This is how we develop a depth of understanding and become able to use the ideas we learn.

Try to link the issue raised in each thought pause with what you have read, with what you have already learnt about learning, with your own previous experience, and so on. Think about the problem we have raised. You might want to jot down your ideas in your workbook so that you can be reminded of them at a later stage.

An icon like this will appear in the margin when you need to stop reading and reflect on an issue.

Activities on the videotape

The videotape contains two sample lessons that will be useful for you to watch to reflect on the use of time and space in the classroom – those shown on the tape as well as other situations that you may be considering.

It is quite easy – and tempting – simply to watch the videotape before working through the module. But this is not the best way to view it, as the learning guide has structured the 'experiences' contained on the videotape into the learning of particular concepts. We will refer you to the videotape by inserting icons in the margin at the appropriate time. Viewing at the appropriate time – with ideas and questions from the learning guide in your head – will make the use of the video much more meaningful.

An icon like this will appear in the margin alongside activities that require you to watch the videotape.

Reading further

This module is designed as a flexible learning resource. In other words, it is written to be accessible to first-year trainee teachers, but also to be useful to teachers who are already working, but are interested in developing their knowledge of these issues further.

We have made several references in the margins to other texts that provide reading around related issues. Learners who want to deepen their knowledge are encouraged to follow up on these references.

The 'Further reading' section at the end of the module provides an annotated list of a select number of recommended texts that can be used to deepen your understanding of the various issues covered in this module.

An icon like this will appear when we refer you to further reading. It gives you a reference to material in the reader or in a book that the writers found useful.

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1.4 What are the module's study requirements?

Since the module is about time and space in teaching and learning, some of its crucial study requirements are also about time and space. Where should you study, when, and for how long? Only you can decide on the first two parts to this question. Here are some guidelines. For the prescribed readings, activities, assignments, and making your own notes, find a quiet place where you can concentrate without interruption or distractions. You might find it helpful to make a habit of using the same quiet place at the same time every day or every second day or every weekend (depending on what other commitments you have). Whether you work on the module for an hour or two every day or in a concentrated block of six hours over the weekend, it's important to work regularly and not in fits and starts. In other words, you should set up a routine and stick to it.

In addition to time and space for concentrated study on your own, you should also try to set aside time and space for critical discussion with others. Find places –the school staff room, the college canteen, the steps of the public library – where you can talk to fellow students and teachers about the concepts, issues and arguments, in this module.

The module is designed to take about 120 hours of study. This will take you about six hours a week over twenty weeks or, if you want to work more intensively, twelve hours a week over ten weeks. Throughout the module you will find weekly time guides to help you pace yourself. Here are some guidelines on how to spend the 120 hours:

- Reading time: about 55 hours. This includes reading the learning guide as well as the prescribed readings in the reader.
- Activity time: about 50 hours. This includes the time it takes you to think about what you have read, do the activities, watch the videotapes, and write these up in your workbook. It also includes the time you spend making your own notes.
- Assignment time: about 15 hours. This is the time you will spend writing up the assignments you submit to your tutors.

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SECTION TWO

Time and space in teaching

Teaching as a practice that shapes, and is shaped by, time and space

Time and space in teaching

A schematic story of Section Two

Teaching as a practice that shapes, and is shaped by, time and space

Time and space shape, and are shaped by, ordinary activities

For example: familiar activities like soccer and choral singing.

External arrangements of time and space shape activities in activities

Internal arrangements of time and space are shaped by participants

(SECTION 2.2; PAGES 13 - 15)

Activities involve intentional actions

Actions are performed by human agents with intentions.

Actions

Other events

Human agents shape time and space through their actions

(SECTION 2.3; PAGES 16 - 18)

Teaching as an activity

Teaching is an intentional everyday activity. We recognise teaching by its formal purpose.

The formal purpose of teaching is to bring it about that someone tries to learn something.

Teaching is a co-operative activity, with a double object (i.e. we teach something to someone)

Teachers should arrange the internal time and space of teaching in a way that best enables learning

(SECTIONS 2.4 - 2.6; PAGES 19 - 29)

School teaching is the practice of organising systematic learning

As a practice, school teaching has:

- a formal purpose;
- a community of practitioners;
- a history and traditions;
- flexibility in relation to changing conditions;
- openness to change, within the formal purpose;
- internal standards of success and excellence.

(SECTION 2.7; PAGES 30 - 34)

Practices are located in institutions and are conducted within a set of rules

Institutions are meant to enable practices, but can also disable or corrupt them.

Two kinds of rules are crucial for any practice:

Constitutive rules

Regulative rules

Some rules (both constitutive and regulative) are rules about ways of shaping and using time and space.

(SECTION 2.8; PAGES 35 - 37)

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2.1 What can you hope to achieve by working through this section?

Section Two builds a conceptual foundation for the module as a whole. By the end of the section you should be able to use the following concepts to help you think about school teaching and how it is related to arrangements of time and space:

- internal time and space;
- external time and space;
- activities, agents and intentions;
- formal purposes;
- elements of teaching;
- practices;
- institutions;
- regulative and constitutive rules.

You should also be able to use these concepts to help you reflect critically on your own teaching, its special demands and challenges.

On the previous page you will find a map of the main concepts and key points in Section Two.

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How activities shape, and are shaped by, time and space

2.2

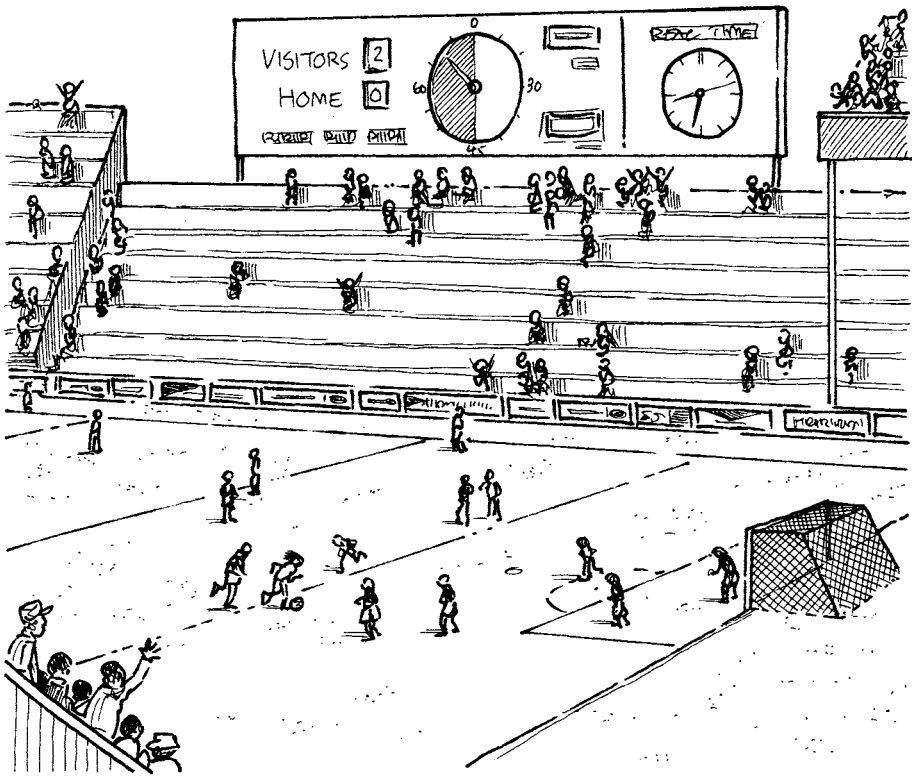
Let's think about teaching and the ways in which it is shaped by, and shapes, time and space.

What does this mean? We know what it would be to shape a piece of clay or wood, but can *time and space* be shaped? And can activities be shaped by time and space? We can begin to answer these questions by thinking about some familiar activities and how they shape, and are shaped by, time and space.

Time and space in familiar activities

Time and space in sport

A soccer match is shaped by time and space in obvious ways. The match starts at some particular time, is 90 minutes long, each half is 45 minutes, and the match takes place at a particular place, on a field with clearly- marked boundaries. These time and space conditions form the limits within which the match takes place, and they 'shape' it in a particular way, the strategies of the teams would be different if the field was larger or smaller, or the time longer or shorter. But such conditions are *external* to the game itself; they are not under the control of the players while the match is being played.



In a soccer game, there are clear boundaries in terms of external time and space.

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But there are other elements of time and space which are under the control of the players while the match is being played, and which are *internal* to the game itself. A successful soccer team is one that shapes the game by having good control over time and space during the match. The way in which the members of a team occupy the field, the positions they take up, and the timing of their attacking or defensive moves or their passes to each other have an important effect on the outcome of the match. In a good team the players always seem to be in the right place at the right time. TV commentators are aware of these dimensions of internal time and space when they describe teams, or players, as 'creating space' or as 'seeming to have all the time in the world'. We understand what comments like this mean, and they express something very important about what it is to play soccer well - to shape the game by having good control over its internal time and space.

Take some time to reflect on the issue being raised here. .

Stop. Think.

Think of examples of external and internal time and space in the game of cricket. How different are they to the external and internal time and space in soccer?

Cricket matches are shaped by time limits, and the size of the field. 'One- day cricket' is different from four-day matches, and on smaller fields, where the boundaries are closer to the batsmen, we can expect more fours and sixes. A game of cricket is, in this way, shaped by external time and space conditions. But there is also the internal time and space of cricket. The placing of the fielders shapes the match in a particular way; it makes a difference to the number of runs that can be scored and how quickly. A successful cricket captain will have a good sense of where to place the fielders in particular conditions, for a particular batsman and at a particular stage of the match. The control of internal time and space – when to bring on a fast bowler, from which end of the pitch the bowler should bowl, when to change to a slow left-arm spinner, when to go for a high-risk strategy, when to slow the game down, the sequence in which the batting team sends in its players to bat, and so on – also contributes significantly to shaping the match.

As in the case of soccer, the external time and space conditions of cricket are decided in advance of the match, and perhaps by people other than the players themselves, and during the match they are not under the control of the players. But again, as in the case of soccer, internal time and space *are* under the control of the players while the match is being played, and success depends, in large part, on which team manages most successfully to control internal time and space.

Time and space in other activities

Think now of a different kind of activity – choir singing – and the ways in which it is shaped by external time and space, and how the participants themselves shape the internal time and space of their singing. The performance of the choir is scheduled for a particular time and venue, probably arranged in advance, and possibly by people other than the choir members themselves. The performance will be shaped by these arrangements: the time allotted for it – say ten minutes or an hour – and the particular characteristics of the venue. A programme suitable for a ten-minute performance in a large hall is likely to be different from what would be suitable for a three-hour performance at an open-air venue or a forty-minute performance in a small room. But within the boundaries of such *external* conditions of time and space the choir itself will shape the *internal* time and space of its performance. The sopranos all stand together and in front of the tenors and for particular items the various parts of the choir might be differently arranged. In the case of choir singing the control of internal time is obviously at the heart of a successful performance. For example, the sopranos may need to come in with their piece at the precise moment at which the tenors reach the loudest point in a section, etc. As in the case of both soccer and cricket, here again, external conditions of time and space shape the

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activity in a particular way, and might not be under the control of the participants at all, certainly not during the performance. But the shaping, and very success of the activity, depends heavily on the ways in which the participants shape the activity by controlling its internal time and space.

Stop. Think.

Take some time to reflect on the issue being raised here.

Think of a few other examples of activities that you know something about (perhaps cooking, boxing, ballroom dancing, tennis, aerobics, golf, netball, road running or gymnastics) and think about:

- how they are shaped by *external time* and *space conditions,* and
- how the participants themselves shape the *internal time* and *space* of the activity.

Your examples and those of soccer, cricket and choir singing, highlight the ways in which these activities are shaped by external arrangements of time and space, and the ways in which the participants themselves shape the internal time and space of the activity. But they also begin to show us two other things:

- how the control of internal time and space contributes to success in the activity; and
- how different the appropriate organization of internal time and space is in different activities.

This is what we need to think about next.

Controlling the internal time and space of an activity

There are usually fairly obvious practical reasons for the arrangements of *external* time and space of the activities we have considered. Soccer matches generally begin at three or four on a Saturday or Sunday afternoon, rather than at three o'clock on a Monday morning. Ballroom-dancing competitions take place in halls with wooden floors, and gymnastics takes place in well-lit venues. It would be very odd for a choir performance to be scheduled to take place in a noisy factory or a golf match to be scheduled to take place in darkness. But marathons usually start early in the morning, and it doesn't matter if it is dark or if the route leads through a noisy industrial area.

But what are the reasons for the organization of *internal* time and space?

How do the participants know what kind of organization of time and space is appropriate for the activity? These reasons depend on what the activity is. The participants know what kind of organization of internal time and space is appropriate because they understand the activity. A cricket captain knows where to place the fielders and when to bring on the slow bowler because he understands the activity of playing cricket. And we might add that the deeper his understanding of cricket the more likely it will be that his control and organization of the internal time and space of the game will lead to success.

Activities are different from each other: cooking is different from playing netball, and both are different from playing rugby, running marathons or making pots. Different activities require different organizations of internal time and space, and the participants in any activity know what the appropriate shaping of the internal time and space of the activity is because they understand what is distinctive of the activity.

Before we turn our attention to the activity of teaching, and what is distinctive of it, there is something important that we need to notice. We have been thinking about activities and the shaping and control of their time and space, and have considered a range of examples - from playing soccer to doing cooking and making pots. These activities are very different from each other but we call all of them 'activities'. Why is this?

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2.3 Human actions and intentions

Activities always involve people, and they are things that people *do* rather than things which simply happen, people take part in activities *intentionally*. Let's think a bit more about human actions and intentions.

Jumping off a cliff is different from falling off a cliff, and both of these are different from being pushed off a cliff. Here are the differences:

1. Jumping off a cliff is something that someone *does*, it is an action performed with an *intention*, and the person who jumps can be called the *agent* of that action. The agent of an action is the person who has the intention and does the action.
2. Falling off a cliff is something that simply happens to someone, it is an accident, not an action, and there is no agent or intention involved.
3. Being pushed off a cliff is not an accident, there is an agent involved, but the agent in such a case is not the person who is pushed but the person who did the pushing. Something happens to the person who is pushed, she is not an agent but the victim of someone else's action and intention.

Human actions and other events

The distinction between human actions and other events is extremely important in our lives, including in our understanding of teaching and learning. We hold people responsible, or accountable, for their actions. We praise or blame people for the actions they perform, not for what they suffer or simply happens to them.

Practise making this distinction between human actions and other events by doing the following activity in your workbook.

Set aside about 20 minutes for this activity. You might like to reread and assess what you have written before you proceed.

ACTIVITY 1

Make a chart in your workbook, like this:

Human actions	Other events

In a typical newspaper or radio or television news bulletin there is usually a mixed bag of items. Look through the following list of news items, and write each under the appropriate heading in your chart (Hint: In each case ask whether there is a human *agent* with *intentions*):

- an earthquake has taken place in Turkey
- a shop owner in Khayelitsha has been murdered
- a new law has been passed in Parliament
- a young woman has been raped at a taxi rank in Pretoria
- a project to alleviate poverty has been successful
- a river in KwaZulu-Natal has flooded and destroyed an informal settlement
- the World Bank has agreed to lend South Africa 10 billion US dollars
- a huge storm is approaching Northern Province
- someone has rescued a swimmer attacked by a shark
- a building has collapsed in Gauteng

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You probably found it quite easy to see that the murder, the rape, and the rescue are human actions – actions performed with intentions and for which the agents can be held responsible, and for which it would be appropriate for them to be punished or rewarded. You also probably found it quite easy to see that the earthquake, the flood, and the storm are 'other events' and not human actions. This is because no intentions or human agents are involved in these cases and, although we might be distressed by the consequences of such events, there is no one to blame or punish.

The other items on the list might have given you more difficulty. The collapse of the building should probably be classified under the 'other events' heading. The reason would be that, in spite of the collapse being, perhaps, a consequence of poor design or sloppy building – for which those who did these things can be blamed –the collapse of the building itself was not done by anybody, it was not the outcome of an agent's intention. For this reason the collapse of the building is not a human action.

By contrast with this, the passing of a new law in parliament is a human action, although in such a case it is a collective action and we can talk of *collective agency*. The project to alleviate poverty is also a human action – someone or some group of people must have had the intention to alleviate poverty – and this person (agent) or these people (agents) deserve praise.

The item about the World Bank lending money is interesting. Clearly the lending itself is a human action, and the collective agent of this action is the World Bank, so this item needs to be classified as a human action. But we need to notice something about this case, which is going to be useful when we turn our attention to teaching. A loan cannot be given unless the recipient agrees to accept it – there must be this kind of agreement between the two parties. The World Bank agrees to give the loan, but South Africa must agree to accept it. There are, thus, two agents involved, and two actions, (a) the action of giving the loan, and (b) the action of accepting the loan. The action of lending is incomplete, it needs a partner action, and it thus involves two agents acting in co-ordination with each other. In other words, lending is a *dual agency action.* Although we can identify and describe the two actions and agents separately, their actions are interdependent; there can be no such action as someone giving a loan unless there is also the action of someone accepting the loan – the news item mentions only the first action. We can contrast the action of giving a loan with the actions of giving someone a gift or pushing someone off a cliff. In these cases there are also (at least) two people involved but the recipient of the gift or the person pushed are not agents – they are simply the persons who benefit from or suffer from the actions of other people.

Human agency in shaping of time and space

Shaping external time and space

Using the distinction between human actions and other events, let's now look back to our previous discussion of the ways in which activities shape, and are shaped by, time and space. We saw how activities are shaped by the organization of external time and space, and we noted how the organization of external time and space is not under the control of the participants during the activity. The organization of external time and space is, clearly, a human action – it is not something that merely happens, like a storm or an earthquake. But the agents of this action are not necessarily the participants in the activity in question. In fact, the participants are usually not the agents who organize external time and space.

Shaping internal time and space

Shaping the internal time and space of an activity is also a human action but the agents here can only be the participants themselves. The soccer team and the choir members, the gymnast and the marathon runner are the agents who control the internal time and space of these activities. In competitive activities, such as cricket

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matches or marathon races, some participants might become the victims of their opponents' organization of time and space, but the most successful competitors are those who can assert their agency – they can 'dictate' the pace of the game and manage to 'dominate' the field. Within the boundaries of external time and space, the control and shaping of internal time and space are actions of the participants during the activity, and the participants in these activities need to see themselves as responsible for the shaping of internal time and space. Their success in the activity depends, in large part, on whether they take responsibility for shaping the internal time and space of the activity.

But, as we have noted, the appropriate shaping of internal time and space is different for different activities. Thus, for participants in any activity to take responsibility for shaping the internal time and space of the activity they need to understand the activity and what is distinctive of it. The actions they perform in shaping the internal time and space of the activity will be guided by their intentions, and if their actions are going to be appropriate their intentions will themselves need to be informed by a proper understanding of what is distinctive of the activity.

In the next section we are going to think directly about the activity of teaching and what is distinctive of it. We need to do this because teachers are the responsible agents in the shaping of the internal time and space of teaching – they can do this well only if they understand the activity of teaching.

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Teaching as an activity

2.4

You already know quite a lot about teaching. You would not be here, reading this module, if you did not. You have been a student for many years in school, and perhaps also in college, and you have probably also done some teaching. Let's find some examples of teaching to help us to think about teaching as an activity. For a start, recall three examples of teaching from your own experience.

ACTIVITY 2

1. In your workbook, briefly describe three examples of teaching that you have experienced. Try to think of three examples that are as different as possible from each other. Identify each example with a few words, or a sentence or two. Label your examples (a), (b), and (c) to make it easier to refer to them later.

2. Think about your three examples by answering the following eight questions:
   - **a** Are all three of your examples cases of teaching taking place in schools?
   - **b** Are all the 'teachers' in your examples people employed as teachers in schools?
   - **c** Are you the 'teacher' in any of your examples?
   - **d** Are any of your examples cases in which more than one teacher was involved?
   - **e** Are any of your examples cases of teaching in which the 'teacher' was younger than the 'learners '?
   - **f** Are any of your examples cases in which the learners were not school or college students?
   - **g** Are any of your examples cases in which only one learner was involved?
   - **h** Are any of your examples cases of teaching that took place over a long time (more than the length of a school lesson)?

You will need 15 to 20 minutes for this activity. It's a good idea to reread and assess what you have written before proceeding. You do not need to write anything in your workbook for questions a-h. For some of these questions a simple 'yes' or 'no' is enough of an answer, but you must try to think carefully about your three examples, and your answers to these questions.

The point of the questions in Activity 2 is to try to break the hold of the common idea that teaching takes place only in classrooms in schools and colleges and other formal institutions of learning. Your three examples, (a), (b), and (c), are probably examples of this specialized kind of teaching.

The common picture of teaching is too narrow

From your own experience you know that teaching is found not only in classrooms in formal institutions of learning. You know that in everyday life mothers teach their children how to eat their food properly, grandfathers teach their grandchildren how to grow vegetables, older brothers and sisters teach their younger brothers and sisters how to dress themselves or clean their teeth, and school-going children might teach an older relative how to speak English, or to read. When we think carefully about teaching we are reminded that teaching is an activity which is constantly present in the everyday lives of normal human communities. In fact, most teaching takes place outside of the walls and timetables of schools and colleges, and most teaching is done by anyone who knows something that someone else does not, and not only by people called 'teachers' or 'lecturers'.

> ***"Teaching is an activity which is constantly present in the everyday lives of normal human communities."***

The common picture of teaching is too narrow. It covers only a restricted range of examples of teaching, and this is why it is misleading if we are trying to find out what is distinctive of the activity of teaching in order to think clearly about the appropriate shaping of its internal time and space.

In introducing Activity 2 one of the things we suggested is that you already know

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a lot about teaching because 'you have been a student for many years in school'. We can now see that this might have taken you off on too narrow a path. To say that you have been a 'student' for many years is different from saying that you have been a 'learner' for many years. You have been a learner for many more years than you have been a student, and many of the things you have learnt you learnt outside of schools and colleges. And a lot of what you have learnt you were taught by people who were not officially teachers. In the first five or six years of your life, before you ever went to school, you learnt some of the most important things you will ever learn, such as how to speak a language and be a human being. Throughout your life, many different people with whom you have come into contact have taught you many different things.

Also, in introducing Activity 2, we suggested that you 'have probably done some teaching'. Perhaps you took this to mean that you have probably already taught in a school, or some other formal institution of learning. But, thinking now in terms of the general activity of teaching, it is extremely unlikely that you have done no teaching at all. Think of examples such as mothers teaching children how to use a spoon to eat their food, uncles teaching their nephews how to restart a car which has stopped, sisters or brothers teaching each other, or their friends, how to dress fashionably or how to play some game, or of a grandmother teaching a grandchild how to thread a needle. As a normal member of a human community you must be able to think of many examples of teaching that you have done, although they might not have come to mind when you were thinking of examples for Activity 2.

Think, also, of how teaching some kinds of things can take extended periods of time, perhaps even years. Think, for example of the time it takes to teach a person how to read or write, and the time it takes to teach a person how to speak another language fluently. These examples also help us think about another way in which the common picture of teaching can be very misleading. That picture suggests that in all cases of teaching only a single teacher is involved. But we know that we were taught how to read or write by a series of teachers, over a number of years. We can also think of other examples in which a number of teachers are involved - a novice motorcar mechanic might be taught his skills by the half a dozen experienced mechanics already working in the garage.

Now think of some additional examples of teaching, examples that break free of the common picture.

Set aside 15 to 20 minutes for this task, Remember to reread and assess what you have written before proceeding.

ACTIVITY 3

In your workbook, write down an example of teaching for each of the following:

- **d** An example of teaching which does not take place in a school.
- **e** An example of teaching in which the 'teacher' is not someone employed as a teacher.
- **f** An example in which you are the 'teacher' but are not teaching in a school.
- **g** An example of teaching in which more than one teacher is involved.
- **h** An example of teaching in which the teacher is younger than the learners. An example of teaching in which the learners are not school or college students.
- **i** An example of teaching in which only one learner is involved.
- **j** An example of teaching which extends over a long time.

You have now provided eleven examples of teaching in your workbook (in Activity 2 and 3), and we have given some other examples in the previous paragraphs. The next question to ask is how we can know whether they are examples of teaching rather than of some other kind of activity, such as, for example, choir singing, gardening, cooking, playing soccer, entertaining or making a political speech. In some ways the examples will be very different from each other, mentioning different teachers, different learners and different things being taught, in different times, places and settings, but what we need to do now is to ask in what ways they are all

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the same as each other. What reason do we have to say that in spite of their obvious differences they are all examples of teaching? What is it that makes them all examples of teaching? This question will help us to discover what is distinctive of the activity of teaching – and how we tell the difference between teaching and other activities. Remember that we are trying to find this out so that we can think clearly about the appropriate organization of the internal time and space of teaching.

So, what is it that makes them all examples of teaching? We already have a starting point for answering this question. Teaching is an activity and, as such, is done by an agent (or agents) with intentions. In this way teaching is more like jumping off a cliff than either falling or being pushed off a cliff. The agent of the activity of teaching is the 'teacher'. Remember that we are talking not only about people who are officially teachers in schools or colleges. But there is an important way in which teaching is not like jumping off a cliff, and noticing this difference will take us forward to an answer to the question of what makes them all examples of teaching.

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2.5 How can we tell whether someone is teaching?

Identifying what activity a person is doing

Week 2 begins.

We can identify a case of someone jumping off a cliff by looking, and finding out what the intentions of the person were. We need to see, for example, a person standing at the top of a cliff and then dropping down the cliff in a situation where his foot did not slip, where no one else pushed or shoved him and where there is no obvious event (such as a sudden gust of wind) that might have caused him to fall. And we need either to ask him or to find out in some other way what his intentions were.

But when trying to identify a case of teaching, there is no particular action we would have to observe. Someone who is teaching might, or might not, be speaking, or showing or demonstrating something, explaining something, writing in a book, doing an exercise, playing a musical instrument, giving instructions to someone, telling someone something, and so on. Someone might be doing any of these things and yet not be teaching, and there is no particular action a person must be doing in order to be correctly described as teaching. Furthermore, even to add the intentions of the agent to this story does not give us a foolproof answer to the question of whether the person is teaching. Those intentions themselves need to be of a particular kind.

Let's think of a contrast between teaching and playing tennis, baking a cake or riding a bicycle. Simply by looking we can discover whether or not someone is playing tennis, baking a cake or riding a bicycle. Someone can't be playing tennis, for example, unless they are using a tennis racquet and trying to hit a tennis ball. It could never be correct to describe someone as baking a cake unless they were measuring some ingredients, mixing some ingredients together or putting a cake-tin filled with the mixture into an oven. Similarly we can describe someone as 'riding a bicycle' only if they are on a bicycle and pushing the pedals to make it move forward.

But this method of simply looking doesn't work in the case of teaching and some other familiar activities.

Pause to think about these examples before reading on.

Stop. Think.

> **Think of the examples of the activities of working, housework and gardening. What would you look for to see whether someone was doing these activities?**

If you were told that someone was working what might you expect to see if you went to see what they were doing? Well, you might see them standing behind a shop counter, or writing, or digging a hole in the ground, or playing cricket, or painting a roof or a picture, or singing, or carrying a piece of furniture, or driving a car ... And this list simply goes on and on. In trying to find out whether or not someone is really working we would need to discover what their intentions are, and some other things as well- such as whether they are being paid to do whatever it is they are doing. Not everyone who is playing cricket or singing is working, although some might be, and we can't, simply by looking, answer the question of which cricket players or singers are working and which are not.

Similarly, if we were told that Pat was doing housework we cannot be at all sure what it is that we would observe if we went to try to find out whether this was true. We might see Pat sweeping the floor, making the beds, cleaning the windows or dusting the furniture, or we might see him doing none of these things because at

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this time he happens to be washing the dishes. Pat must be doing *some* action if it is true that he is doing housework but there is no particular action that he *must* be doing now. How then, can we tell whether or not it is true that he is doing housework? The answer here is that he must be doing anyone of a wide range of possibly relevant actions and that he must be doing it with intentions that form part of the formal purpose of the activity of housekeeping.

The concept of the *formal purpose of an activity* is going to become central to this module, and one of our main tools in thinking about the organization of the time and space of teaching. So let us think about what this concept means.

The formal purpose of an activity

What we need to notice here is that the formal purpose of an activity is a concept which is shared in a community, it is not something that can be changed by a decision, and it is not personal or subjective.

If we saw Pat, for example, sitting and watching the TV then he cannot be doing the housework. He might tell us that he is indeed doing the housework, and try to persuade us that the action of sitting and watching TV falls within the range of actions of doing housework, but his story would have to be very good to persuade us to agree with it. But if he tells us that he sees no reason why he should conform to someone else's concept of housework, that he has his own concept of housework – his *own view* about what the formal purpose is of the activity of doing housework – and according to his concept, sitting and watching TV is part of doing housework, then we will not be persuaded. What the formal purpose is of the activity of doing housework was not decided by anyone, and it is not *owned* by anyone, and it is not possible for any individual person to change it. It is part of the shared understanding of a community.

Think, now, of how we could find out whether Martha is gardening. She must be doing something observable and definite – she must doing an activity such as digging, planting the seeds, pruning a tree, or raking the path – but there is no *particular* thing that she must be doing. To find out whether or not it is true that she is gardening we would need to find out whether she is doing something within the very generous range of actions which might fall within the scope of the formal purpose of gardening, and she must be doing it with intentions appropriate to that purpose. If we do not know very much about gardening we would not be in a good position to make reliable judgements about whether someone was or was not gardening if we saw them, for instance, pouring a bucket of water into a hole in the ground. And if our understanding of gardening was shallow we might think that there is nothing more to gardening than, for example, cutting the grass. So, we may think that if Martha is not cutting the grass that means she is not gardening. But we would, of course, be wrong if we thought this.

There is a word we can use to describe activities such as working or doing housework or gardening – they are *polymorphous* activities, activities that take many forms. Someone doing housework or gardening could be doing any of a wide range of actions – but this range is not unlimited. If someone is lying in bed, running in the forest, or sitting and watching TV, then they simply cannot be doing housework or gardening. If we want to know which actions and intentions are appropriate to an activity we need to ask what the formal purpose of the activity is.

Polymorphous activities, unlike activities such as jumping off a cliff, playing tennis, baking cakes or riding bicycles, cannot be identified by straightforward observation. *Polymorphous activities are defined by their formal purpose*, and that purpose draws the boundary around both what could count as appropriate actions and what could count as appropriate intentions for the agent. In order to know whether or not anyone is doing any of these polymorphous activities we need to be able to observe some appropriate action, and we need to know whether the intentions of the agent are appropriate to the activity. And what is appropriate depends on what

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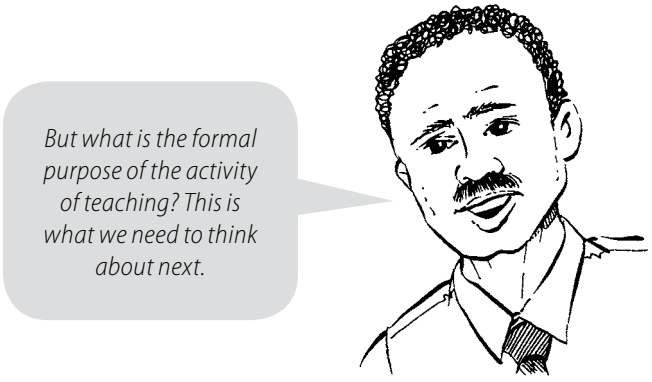
the *formal purpose* of the activity is. It is the formal purpose of the activity that is the same across the various examples of the activity, and we can't find out what the formal purpose is merely by looking.

Teaching is a polymorphous activity, it takes a variety of forms, and it is defined by its formal purpose. Someone who is teaching might be engaging in any of a wide range of actions, and there is no straightforward observation that could be used to discover whether anyone is teaching. This is the key to answering the question of what, in spite of their obvious differences, is the same across all our examples of teaching. They are all, in their various ways, examples of actions guided by the formal purpose which defines the activity of teaching, and they all involve agents whose intentions are shaped by that purpose.

What have we learnt so far?

Here are the main points of our discussion about how we can tell whether someone is teaching:

1. A person who is teaching must be engaging in some appropriate *action*, and must be engaging in that action with appropriate *intentions*.
2. We can tell what the *appropriate* actions and intentions are only in terms of the formal purpose that defines the activity of teaching.
3. The *formal purpose* of an activity is a concept that is shared in a community, it is neither personal nor subjective.



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The formal purpose of the activity of teaching

2.6

In your workbook you have written eleven examples of teaching (from Activity 2 and 3) and, in Section 2.4, about twelve other examples are mentioned. We raised the question of what it is that makes all of these examples of teaching. If we think that by simply looking we will discover what is common to all the examples, this is a difficult question to answer. But if we understand that teaching is a polymorphous activity, defined by its formal purpose, we have a way of answering the question. But only if we are clear what that purpose is.

ACTIVITY 4

Look back over the examples we have gathered in Activity 2 and 3 and in Section 2.4. In your workbook, make a list in point form of what is the *same* across all the examples.

Set aside 30 to 45 minutes for this task. What you write here provides an important first step for thinking about the formal purpose of teaching. So it's a good idea to reread and assess what you have written before proceeding.

Teaching requires a double object

Here is another example of teaching: Khaya (T) is teaching Peter (L) how to drive a car (C). Think of this as a sentence and think about how in most simple sentences we can find a subject, a verb and an object. In the sentence 'Mandisa hit the dog', the subject is 'Mandisa', the verb is 'hit' and the object is 'the dog'. Now think about 'Khaya is teaching Peter how to drive a motor car ', The subject of this sentence is 'Khaya' and the verb is 'is teaching', but there are *two objects* – both 'Peter' and 'how to drive a motor car'. This is an unusual feature of the verb 'to teach' - it requires a double object.

This is a key point in understanding the formal purpose of the activity of teaching. Teaching always requires a double object – someone being taught (L) and something being taught (C). Sometimes when people, and even teachers themselves, think about teaching they forget this, and when they do then they might say things like 'I teach children, not subjects', or they might think of teaching as a 'process' without thinking of any 'content'. But we can see now that this can't make sense. If you are teaching children, you must be able to say what you are teaching them, and the 'process' of teaching necessarily involves something being taught.

We can emphasize this point by saying that we can always ask two questions of anyone who says they are teaching:

- '*Who* are you teaching?' and
- '*What* are you teaching them?'

These same two questions can be used in a variety of different contexts. We can ask someone who is planning some teaching: who are you going to teach, and what are you going to teach them? And these same two questions can be used in analyzing (thinking carefully about) any example of teaching.

There are thus three basic things involved in all examples of teaching:

- a teacher (or teachers);
- something being taught (the 'content' of the teaching); and
- a learner (or learners).

In any example of teaching we must be able to identify these three things: who is teaching (this might be one person, or a number of people), what they are teaching, and *who* they are teaching (again, this could be one person or many). Here we have something that must be in all examples of teaching. In some of your examples you might not definitely have mentioned each of these three things separately but

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merely implied them in the example – nevertheless they must be there, otherwise it cannot be an example of teaching at all.

A formula for the activity of teaching

To help us to remember this we can use the following formula: T is *teaching* C to L. We call this a formula because it is an empty sentence pattern, it does not mention any particular teachers or learners and it does not mention what is being taught. The letters T, C, and L stand for *any* teacher, content and learner, and the formula is a *general* formula for all cases of teaching. This formula is like a skeleton; actual examples of teaching put flesh on the skeleton by referring to particular teachers, content, and learners.

T is teaching C to L.
who what who

As we have seen from the many examples we have considered, for many people who teach we have no special names – they are simply mothers, uncles, grandpas, sisters, brothers or friends– but for some who teach we have specialized names such as 'teacher', 'coach', 'instructor', 'trainer', 'lecturer', 'facilitator' or 'mentor'. We do not need to worry about these special labels here, or how they might be different from each other. In the formula, T stands for any teacher and C stands for the content – for *whatever* is being taught and learnt in any situation. Sometimes the content is a 'subject' -like arithmetic or history; sometimes it is a learning area– like life orientation; sometimes it is an activity – like reading, playing netball, or fixing a door, sometimes it is a skill or competence -like how to use a spanner, how to greet strangers, or how to thread a needle. And, of course, not all learners are called 'students' – in our formula anyone who is trying to learn is a learner.

Now practise using this formula by doing the following activity:

You should spend about 30 minutes on this task. It's a good idea to reread and assess what you have written before proceeding.

ACTIVITY 5

Make a chart like the following in your workbook and complete it with reference to the eleven examples (a - k) of teaching you have provided in Activity 2 and 3. (In some of your examples you might not have mentioned who the teacher is, what was being taught or who the learners were. Here you will have to work that out. Remember, too, that in some of your examples there might be more than one teacher, and more than one learner.)

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T	is teaching	C	To L
a			
b			
c			
d			
e			
f			
g			
h			
i			
j			
k			

This formula (T is teaching C to L) provides us with a major step towards understanding what the formal purpose is (what is distinctive) of the activity of teaching. At this point, look back in your workbook to what you wrote for Activity 4 when you tried to say what was the same across all the examples of teaching we have been considering. See whether there are other things you mentioned there which are *not* expressed in our formula. Perhaps you remembered what we noticed in thinking about the example (in Activity 1) of the World Bank agreeing to lend South Africa 10 billion US dollars, and perhaps you mentioned something about how teaching is a dynamic activity – something our highly abstract and 'bloodless' formula doesn't mention.

Teaching is a co-operative activity

Remember when we discussed the example of the World Bank lending money to South Africa that we said that the action of lending is 'incomplete' – it needs a partner action and involves at least two agents acting in co-ordination with each other. Teaching is also like this. On its own, it is 'incomplete'; it needs a partner action. Teaching is a *co-operative activity*, teachers and learners are not in competition with each other (although it may often seem this way); they need to co-operate for teaching to be possible. This is not brought out dearly in our formula. The 'L' in the formula does indeed refer to a learner, or to learners, but it tells us nothing about what they should be doing. The activity of teaching is incomplete without the action of trying to learn. This is one reason for saying that the formula is not a satisfactory account of the formal purpose of the activity of teaching.

The formula is too static, it doesn't make clear enough that teaching involves an active, co-operative relationship between the teacher and the learner(s), and, although the teacher is the main agent, both the teacher and the learner(s) have important parts to play. This is similar to the case of giving someone a loan (rather than a gift); there can be no such thing as the action of giving a loan without the partner action of someone accepting the loan. Learners are not merely the passive victims of teaching. For teaching to be successful, the learners need to engage actively in trying to learn. But we need to add that part of the responsibility of anyone who is teaching is to act in a way that encourages learners to learn. Teaching is a dynamic activity, and success in teaching depends largely on whether the person doing the teaching stimulates and enables the learners to engage in the actions of trying to learn. We now have what we need to express the formal purpose of the activity of teaching:

The *formal purpose* of the activity of teaching is to bring it about that someone (L) tries to learn something.

Take note of this key point about the formal purpose of the activity of teaching.

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Conditions for learning – time and space

The formal purpose of teaching shows us something about how teaching is related to time and space. In order to bring about that someone tries to learn something, the *conditions for learning* need to be taken into account. These include conditions of time and space, which vary according to who the learners are and what they are trying to learn. Subsequent sections in this module develop this point in detail, but here we can note some brief points.

The time it takes different learners to learn something

We all know that some learners take a much longer time than others to learn certain things. A brother in a family might take a long time to learn how to greet strangers politely but his sister might learn this very quickly- almost spontaneously. But the same brother might learn very quickly how to make clay pots while his sister takes a long time to learn this. There are some things which younger learners usually learn much more quickly than older learners – we might think here of the comparatively short time it takes for a normal human being to learn their first language.

What is being learnt?

In general, how long it takes to learn something also depends on some features of what it is that is being learnt. If what is being learnt is a straight- forward item of information such as the birth date of the president or the size of the population in China, this might be learnt in an instant. But if what is being learnt is something complex such as how to read or solve quadratic equations, it is likely – as we know from our own experience – that it will take a long time, perhaps years.

Appropriate space for learning

In the same kinds of ways the conditions for learning include conditions that have to do with space and place. For example, one cannot learn a physical skill like how to ride a bicycle or balance on top of a fence while sitting in a classroom, and one cannot learn to write if one is not in a place which is something like a classroom. Learning how to do woodwork is much more difficult if you are not learning it in a workshop with the appropriate tools and benches or in a classroom that is set up like a workshop. This is a reason why the teachers of some subjects would like to have specialized class- rooms.

Appropriate time and space for learning different activities

There are many different ways in which the conditions for learning show the ways in which teaching – understood as the activity of bringing it about that someone tries to learn something – is related to time and space. As I have said, this topic is developed in detail in the other sections of this module. But there is one very important general point that is worth high- lighting here. Some kinds of things can be learnt best out on the streets or in the fields, but there are other kinds of things that can be learnt best in schools and other formal institutions of learning. If we think carefully about the conditions for learning – especially those conditions that have to do with time and space – we can understand why it is a mistake to think that schools can teach everything that can be learnt. 'School knowledge' is a selection of knowledge and one very important criterion for this selection is that it is the kind of knowledge which can be learnt in the time and space characteristic of schools.

Concluding points about the formal purpose of the activity of teaching

Before we carry these understandings forward, there are two important things we need to remember:

1 Teaching because teaching can take many forms, it is a polymorphous activity,

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and there is no particular action that it *must* involve. Someone who is teaching might be talking, but they might not be, they might be writing on a chalkboard, but they might not be, and so on.

Stop. Think.

Take some time to reflect on the issue being raised here.

Look back over the many examples of teaching we already have – both those given in this book and those you thought of. In each case, ask whether they fit in with what we have now said is the formal purpose of teaching. If you can find an example which seems to you clearly to be a case of teaching but which does not fit the formal purpose of teaching, think about it very carefully. Perhaps you'll find out that we have not yet been successful in expressing the formal purpose of the activity of teaching or perhaps you will be persuaded that what seemed to be an example of teaching wasn't really an example of teaching but of some other activity.

2 The external time and space of an activity is not under the control of the participants during the activity. However, they do have some control over the internal time and space. In fact, for an activity to be successful, it usually depends on the participants having good control of its internal time and space. The formal purpose of the activity of teaching is what is distinctive of the activity of teaching. So, if anyone is going to know how to shape the internal time and space of teaching satisfactorily they need to know this formal purpose. If they understand that the formal purpose of teaching is to bring it about that someone (a learner, or learners) trys to come to learn something, then they will have some sense of how the internal time and space of the activity needs to be organized.

What have we learnt so far?

Let's summarize some key points before moving on:

1 Different activities require different arrangements of time and space. Participants in an activity know how to shape internal time and space appropriately because they understand what is distinctive of the activity.

2 Teaching is distinguished by its formal purpose, which is to bring it about that learners try to come to learn something.

3 When teachers arrange the internal time and space of teaching, they need to think about which arrangements will best enable learning.

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2.7 The practice of teaching

Week 3 begins.

We have already come a long way since we started to think about how the activity of teaching shapes, and is shaped by, time and space. We have been thinking of teaching as a familiar activity that is constantly part of the everyday lives of normal human communities, and we concluded that this activity is defined by its formal purpose – which is to bring it about that someone tries to learn something. We are now going to start thinking about the specialized kind of teaching which takes place in schools, in formal institutions of learning. To identify this specialized kind of teaching we will call it 'school teaching', and we will now think about it as a practice.
To call something a practice is to claim that it is an activity, but an activity with some special characteristics. Like all teaching, school teaching is an activity. Thus what we have discovered so far applies to school teaching as well, but it has some special characteristics. Some of these characteristics are that it normally takes place in the context of an institution, that it characteristically involves teaching a number of learners simultaneously, and that those who do this kind of teaching are usually professionally employed in this capacity. Although these characteristics are important in thinking about school teaching, they are not essential to its being a practice. In subsequent sections of this module these other characteristics will be explored in detail. Here we will think about the implications of thinking of teaching as a practice.

Characteristics of practices

We shall here briefly introduce five characteristics of practices in general, and then, in Activity 6, you will have a chance to think about how they can provide us with some important insights into school teaching. The five characteristics of practices are:

1 Practices are necessarily social.

2 Practices have histories and traditions.

3 Practices are flexible in relation to changing conditions.

4 A practice can change, but only within the boundaries of our understanding of what makes it a distinctive practice.

5 Practices have their own internal standards of success and excellence.

As you read about each characteristic, think about how it applies in the case of school teaching. This will help you to prepare for Activity 6.

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1 Practices are necessarily social

In a stronger way than in the case of some other activities, practices are shared and sustained in *communities of practitioners*. To see something as a practice places much more emphasis on the way in which it is necessary that it is social. This is not merely a point about how some activities – such as, for example, playing a team game or having a discussion – necessarily involve a number of participants acting in co-ordination with each other (a person cannot play hockey or chess, or teach, by themselves.) But it is a point about how what could even count as an example of participating in the activity cannot be a matter of personal intentions or individual decision. There are some practices, such as writing a novel, which might be done by a single person working on their own, nevertheless, what counts as writing a novel cannot be a matter of individual decision.

We have already considered examples of this kind in relation to Pat doing housework and Martha doing gardening. Our shared understanding of housework and gardening draws a boundary around what could count as an example of participating in the practices of housework or gardening. This boundary might not be very sharp but we know that there is a boundary because we know, for example, that dozing in front of the TV cannot be a kind of housework or gardening. This boundary was established by something like agreement amongst those who participate in the activity and people who talk and think about these things. The origins of this understanding are unlikely to have been an explicit agreement at a particular moment -like agreeing to name a new child 'Thandi'. However, there is implicit agreement about the concepts in terms of which we understand this part of our world. Because this understanding is shared and communal, rather than individual or personal, we can say that it is based on interpersonal agreement. And in this way practices are essentially social.

2 Practices have histories and traditions

Unlike some other activities, practices have histories and traditions. The practices of cooking, building shelters, playing soccer or thinking scientifically, and, of course, school teaching, all have histories during which particular traditions have developed of how to participate in the practice, and of what counts as good or excellent participation. To become a participant in a practice involves critically appropriating its history and traditions, and anyone who imagines themselves as having invented a practice without having taken account of its history and traditions is simply naive or ignorant.

3 Practices are flexible in relation to changing conditions

The traditions that are embedded in a practice, and that serve, partly, to define it, are not rigid or static. Practices can be thought of as open and ongoing projects that stop changing only when they cease to have vitality and significance in our communal lives. Over time practices change, sometimes gradually, but sometimes quite rapidly. What brings such changes about is changes in our knowledge of the practice and how its definitive goals can be better served, changes in relevant technologies, and circumstances, and creative innovations from some of its participants. In these ways, practices remain open to revision and improvement.

4 A practice can change, but only within the boundaries of our understanding of what makes it a distinctive practice

Although practices are open to revision, those revisions and improvements remain within the broad boundaries that mark out the scope of the practice. There is an important difference between improving a practice and either abandoning the practice or substituting a different practice for it. Over time a practice like playing cricket changes, although the question of whether such changes count as improve-

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ments is always a matter of controversy. The practice of playing cricket doesn't change by everyone simply ceasing to play cricket, or by substituting another game, such as baseball, for cricket. There is something essential to the practice of playing cricket, and changes take place within, as we might put it, the framework of that essence – otherwise the changes in question are not changes in the practice of cricket at all.

If we think back to what we have discovered in the formal purpose of the activity of teaching we can see how this might work. That formal purpose, now being seen as a formal purpose of the practice of teaching, makes a conceptual and practical boundary to what we are prepared to accept as an example of teaching. The formal purpose of teaching is to bring it about that someone tries to learn something. How this might be done is not specified in this purpose, and we know that there are many ways of doing this. Improvements in the practice of teaching might arise from changes in relevant technology, changes in our knowledge of the conditions for learning, or even from a practitioner discovering a way of accomplishing this purpose that had previously not been thought of.

5 Practices have their own internal standards of success and excellence

A very important fifth characteristic of practices is that they have internal standards of success and excellence. Someone can participate well or poorly in the practice of, for example, cooking. Some participants are much more successful than others and some even achieve excellence in this practice. The criteria for success or excellence are internal to the practice – one cannot judge the excellence of choir singing in terms of the criteria appropriate for judging the excellence of participating in the practice of gymnastics – and such judgements are not subjective or personal opinion. We can add here that when the standards of success and excellence of one practice are used in judging success or excellence in another practice, that practice can be corrupted or distorted. In Section Three you will see an example of the way this happens – there an efficiency expert uses the criteria appropriate in assessing efficiency to assess a musical performance.

You should spend about 45 to 60 minutes on this task. It's a good idea to set aside the last 10 to 15 minutes to reread and assess what you have written before proceeding.

ACTIVITY 6

In your workbook, under the following five headings write some notes in which you think about school teaching as a practice:

1 School teaching is an activity which is shared in a community of practitioners

2 School teaching has a history and a tradition

3 School teaching is an open practice

4 Changes in the practice of school teaching remain within the boundary of the scope of this practice

5 School teaching has internal standards of success and excellence

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School teaching as a practice

Let's now consider a formal definition of the practice of school teaching. We can begin by recalling the formal purpose we discovered for the general activity of teaching. We said that the formal purpose of the activity of teaching is to bring it about that someone tries to learn something. In defining the practice of school teaching we are not going to reject this formal purpose – school teaching is, after all, a specialized kind of teaching. But in thinking of the practice of school teaching there are other things we need to bring into view.

The formal purpose of the general activity of teaching leaves entirely unspecified what *kind* of learning is involved. For all that formal purpose says about the matter, it could be any kind of learning at all- from the most trivial bits of information to some highly complex kinds of learning, such as the moral principles in terms of which to live one's life. But schooling is centrally concerned with a very particular kind of learning, the kind of learning which leads to the development of conceptual frameworks in terms of which to understand the world in which we live our lives. Such learning needs to be systematic for it to have a chance of being successful. And in order to bring it about that someone engages in trying to learn such things, the learning needs to be organized by those who already understand those conceptual frameworks.

The point being made here might seem complicated, but an example will show that it is, in fact, quite familiar and obvious. Numeracy can be understood as a conceptual framework which we need in order to understand some very important features of the world in which we live. But learning how to be numerate – in other words how to operate with numbers and to do arithmetic – requires systematic learning which usually takes place over a number of years. It is most unlikely that such understanding could develop simply by chance or accident in the daily activities of ordinary life, and this is one reason why we think that it is appropriate for the development of such understanding to be part of the school curriculum. The teacher of numeracy needs herself to understand numeracy – what she is going to teach – and to understand it in such a way that she can organize the systematic learning of numeracy by the learners she is teaching. And here we have the elements we need to formulate a formal definition of the practice of school teaching:

Take note of this key definition of school teaching.

School teaching is the practice of organizing systematic learning.

We need to emphasize that this definition does *not* replace the formal purpose of the activity of teaching, it takes it for granted and adds to it. 'Organizing' is an active verb which implies an agent – and the agents, in the practice of teaching, are obviously the teachers who participate in that practice. In addition, 'learning' requires learners and something being learnt. So this formal definition still meets the requirement that anyone who claims to be teaching must be able to provide adequate answers to the two key questions: 'Who are you teaching?' and 'What are you teaching them?' Finally the word 'systematic' has strong implications of orderliness through time.

To organize learning systematically means to arrange sequences of learning tasks that gradually enable the learner to grasp more and more complex skills and concepts. This sequence unfolds through time. As we have previously noted, some kinds of learning take years to accomplish, and good school teachers are those who know how to organize long stretches of learning in sequences which enable learners to access more complex kinds of knowledge.

As every primary school teacher knows, there are various 'Reading Schemes' which are expressions of the most effective sequence in which to teach reading. Some begin by teaching the letters of the alphabet, others begin with whole words, and so on. But, whatever the differences between 'Reading Schemes', and there are big differences, all of them are providing maps for programmes of systematic learning. This is at the heart of school teaching, and the example of 'Reading Schemes' shows how it can be worked out in relation to teaching reading.

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One other thing we need to note is that a *formal* definition of a practice is a way of specifying the boundaries to what could count as an example of the practice. But within those boundaries there are, and can be, an enormous variety of different ways of proceeding to accomplish a variety of more detailed intentions. The formal definition shows in what ways the practice of school teaching is an open project, in the sense that it is always open to renewal and improvement.

To conclude this section let us now enrich our understanding of school teaching by thinking about it in relation to institutions and rules.

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Institutions and rules 2.8

Among the institutions of a society are such things as hospitals, prisons, churches, mosques, the army, the courts, and of course, schools, colleges, technikons and universities. To think about some of the similarities and differences between these institutions is a very interesting exercise. It is especially interesting in relation to thinking about how these institutions organize time and space in line with their formal purposes, and taking account of the kinds of people in them. In what ways is a school either different from or similar to a prison, or a hospital? In what ways is a university or a school like a church? In Sections Three and Four of this module you will be asked to think about some questions like this.

Here we will prepare the conceptual ground for thinking about the rela-tionship between the practice of school teaching and its home institution, the school.

Institutions and practices

Institutions are established, and maintained, to provide a home for practices. Think, for example, of hospitals and the practices of healthcare. In the ordinary life of a normal community there are, similar to the case of teaching, ongoing informal practices of healthcare. In ordinary communities minor injuries - a child gets a thorn in her finger, another cuts his leg on the fence, and so on – and ailments such as people catching colds or having headaches, are simply dealt with on a routine basis, and any mother has a repertoire of healthcare practices to cope with these little problems. And there are some healthcare experts who participate in the practices of healthcare quite outside of the frameworks of an institution. What happens when we establish hospitals is that we create an institution that gathers together a range of healthcare practices 'under a single roof'. There might be many reasons why we do this – reasons to do with the idea, for example, that these various practices can mutually support and complement each other. But at the heart of institutions like hospitals is the idea that such practices are important enough to the whole society for them to be resourced and protected in an institution. It is obvious that the same story can be told about teaching and schooling.

However, when we take important and significant social practices into institutions then problems arise. Institutions are established precisely to enable the relevant practices to flourish, but institutions develop characteristics that tend to restrict practices, sometimes to corrupt them, or so seriously distort them that they cease to be able to accomplish their formal purposes. When this happens, then people tend to start complaining about 'The Department' or 'bureaucracy' or 'the rules'. We need no reminding of the ways in which this problem emerges in teaching and schooling.

The ideals of the practice of teaching are unlikely to flourish in a society unless we locate that practice in institutions. However, when we do that, there is the constant risk that the institutions in which we locate them will either corrupt the practices or prevent them from achieving their formal defining purposes. It is obvious that this kind of conflict is important in thinking about school teaching, and you should keep it in mind throughout this module.

We might have noted that in tensions between practices and institutions there is frequently dispute about 'the rules'. In thinking about teaching in general, but also school teaching, it is very important to consider the rules.

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Rules, institutions and practices

When people think of rules they tend to think of all rules as restricting people's freedom – rules prevent people from doing what they would otherwise do. But when we think like this we have lost sight of such things as the rules of games –soccer, cricket, netball, chess, bridge, and others. The rules of a game don't prevent you from doing something, they actually make it possible for you to do it. Without the rules of cricket it would not be possible to score a (cricket) century. The rules of games can be said to create a world in which previously unimaginable activities become possible. The rules of language, and academic practices, such as mathematics or history, are the same. They do not *prevent* us from doing something; they make it *possible* for us to do something.

We can thus talk of two kinds of rules – rules that restrict or prevent us from doing something and rules that create the possibility of doing something. As we will see, the difference between these two kinds of rules is extremely important in thinking about teaching, including school teaching. Let's name these two kinds of rules *regulative* and *constitutive rules:*

- *Regulative rules* regulate behaviour and actions that are possible entirely independently of the rules.
- *Constitutive rules* create the possibility of actions that are not possible without the rules.

The following activity will help you to deepen your understanding of the two kinds of rules and their significance.

You will need about 90 minutes to read the passage and to write your responses to the questions. In the interests of your own systematic learning, it's a good idea to reread and assess what you have written before proceeding.

This is taken from Searle, J. ***Mind, Language and Society*** *(Weidenfeld & Nicolson, 1999), pp.122-24.*

ACTIVITY 7

1 First read the following passage from a book by John Searle. Then, in your workbook, answer the questions that follow the passage:

Two different kinds of rules

Some rules regulate antecedently existing forms of behavior. Think, for example, of the rule 'Drive on the right-hand side of the road'. Driving can exist on either side of the road, but given the fact of driving, it is useful to have some way of regulating it, and so we have rules of the form 'Do this or do that'. And in general we have rules that regulate activities that exist independently of the rules. Such rules are regulative. They regulate antecedently existing forms of behavior. But not all rules are of that sort. Some rules not only regulate but also constitute, or make possible, the form of activity that they regulate. The classic example is the rules of chess. It is not the case that people were pushing bits of wood around on a board and someone finally said, 'In order to keep from banging into each other, we need to get some rules. ' The rules of chess are not like the rules of driving. Rather, the very possibility of playing chess depends on there being rules of chess, because playing chess consists in acting in accordance with at least a certain sizable subset of the rules of chess. Such rules I call 'constitutive rules' because acting in accord with the rules is constitutive of the activity regulated by the rules. Constitutive rules also regulate, but they do more than regulate; they constitute the very activity that they regulate in the way that I have suggested. The distinction between brute facts and institutional facts, I have argued and will continue to argue here, can only be fully explained in terms of constitutive rules, because institutional facts only exist within systems of such rules.

Constitutive rules always have the same logical form, even in cases where the logical form is not obvious from the grammar of the sentences expressing the rule. They are always of the logical form: such-and-such counts as having the status so-and-so. I like to put this in the form

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> *'X counts as Y', or more generally, 'X counts as Y in (context) C. Thus, in the context of a chess game, such-and-such a move on the part of a certain shape of piece counts as a move by the knight, such-and-such a position on the board counts as a checkmate. In American football, to cross the opponent's goal line in possession of the ball while a play is in progress counts as scoring a touchdown. A touchdown counts as six points. Getting more points than the opposition counts as winning.*

2 Now, in your workbook, write answers to the following questions:

a What is the single example of a regulative rule given in this passage?

b Write down an example of a regulative rule that might be appropriate in a school.

c When the author writes 'the very possibility of playing chess depends on there being rules of chess', what kind of rules is he referring to?

d One of the constitutive rules of soccer is that no player (other than the goalkeeper) is allowed to touch the ball with his hand. What would you say to someone who says that he thinks that rules are always a limitation of freedom, and that he is going to ignore this rule while he is playing soccer?

e In the second paragraph the author suggests a 'logical form' for all constitutive rules: X counts as Y (we can ignore here the way in which, in the next line, he includes an element about context). He then gives an example from chess, and three examples from American football - one of which is: 'A touchdown (X) *counts* as six points (Y). Find an example of a constitutive rule from each of two games you know about, and write them down as sentences in the form: X counts as Y.

f Now page back to our formulation of the formal purpose of the activity of teaching on page 31, and our formal definition of the practice of school teaching on page 36. Using the sentence frame 'X counts as Y', rewrite them as the constitutive rules.

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2.9 Concluding comments

In this first section of the module, we have established a conceptual frame- work for thinking about teaching as a practice that shapes, and is shaped by, time and space. In establishing this conceptual framework, we have drawn a number of crucial distinctions: for example, between internal and external time and space, between actions and events, between activities, practices and institutions, and between regulative and constitutive rules. And we have used a wide range of examples – from a range of everyday activities and from teaching – both to help us see where we needed to draw conceptual distinctions and to help us test the accuracy of the distinctions. This analytical approach to thinking about teaching is one that you should try to develop as you work through the rest of the module.

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SECTION THREE

School time and space

How school teaching is shaped by arrangements of external time and space

3.1 What can you hope to achieve by working through this section?

Section Three focuses on external arrangements of time and space and how these affect teaching and learning. By the end of the section you should be able to use the following concepts to help you think about different ways of arranging time and space at schools and to understand how these arrangements both help and hinder teaching:

- external time and space;
- structuration;
- order and chaos;
- allocated and prescribed time and space;
- regulative rules;
- contractual rules;
- discretionary time;
- preferential time.

You should also be able to use these concepts to help you think about which arrangements of school time and space are appropriate for promoting systematic learning.

On the previous page you will find a map of the main concepts and key points in Section Three.

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School time and space – introduction

3.2

Section Two looked at school teaching as a highly specialized practice in which considerations of time and space playa major role. As we saw in the examples of activities like soccer and choir-singing, external time and space set the boundaries within which the participants shape the internal time and space of the activity. In a game the players have no control over the external time and space during the game, but they do control the internal time and space of the game. The same goes for teaching – external time and space set the boundaries within which teachers may shape the internal time and space of their practice.

Here we will look at how external time and space are arranged at schools, and we will think about how these arrangements help or hinder teaching and learning at schools.

To begin, let's consider the case of Emma, a Geography teacher who is committed to helping her students to learn systematically. Committed though she is, Emma is struggling to fulfil her teaching intentions in the time and space that have been allocated to her at Columbia High School. The case study that follows illustrates a typical period in her teaching day.

We will return to Emma's case several times throughout the module. On your first reading, try to focus on the question: What are the spatial and temporal constraints on Emma's teaching? In other words, how do arrangements of time and space limit or hinder her teaching? You might find it helpful to skim-read the case study first to get an overview and then to reread it with the focal question in mind.

> *"External time and space set the boundaries within which teachers may shape the internal time and space of their practice."*

Case study 1: Emma

Emma is a Geography teacher at Columbia High School, a co-ed school in an urban area. She is waiting for her Grade 10 class to arrive. It is the last double lesson on a Thursday afternoon in February. Her classroom, which she shares with the History teacher, is right at the end of the corridor so she has to wait a while before the class arrives. In the meantime, she finds that the overhead projector she needs for the lesson has been borrowed by one of the other teachers, and so she asks Joseph, the first to arrive, to fetch it from the staffroom. Because of the heat, Emma opens the windows, but they open only a little way and they do not provide much ventilation. Because it is nearing lunchtime, the noise of the traffic has increased, but it seems better to have the windows open with the traffic noise, rather than to close the windows which would make the classroom too hot.

Emma sighs. She too is tired at the end of the day and feels that the heat is making her sluggish, but she knows that she needs to summon her energy and enthusiasm for the last lesson of the day and so inspire her learners. Slowly, the learners start arriving in pairs and small groups. Nomsa and Karin are as usual among the first to arrive - they greet Emma with smiles and settle themselves into the front desks and start taking out their books. Andile, who fancies Karin, joins them and squeezes into the single seat next to Karin. There are not enough desks in the classroom for all the learners, so they are forced to share – something Andile is very happy to do. Slowly the class fills up. Joseph has still not returned with the overhead so Emma uses the time to start introducing the topic of the lesson. As she is about to start, Mac, Tlhako and Alfred come sauntering in, causing a big disruption as they move to the back of the class, stepping over bags and pushing their way through the narrow spaces in between the rows. When Emma asks why they are so late, they tell a long complicated story about having to see Mr Olamini about soccer practice

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that afternoon.

Instead of pursuing their story and wasting even more time, Emma decides to continue with her introduction of the lesson. But in order to write down the main points on the blackboard, she needs to clean it - it still has the writing of the previous teacher's history lesson on it. Just as she finishes with the cleaning, Joseph arrives with the overhead projector. Emma first has to set up the projector, rearrange the small table on which to place the projector, and draw down the screen. At last, she is ready to begin. Already fifteen minutes of the lesson have gone by. As she projects the transparency onto the screen, the group at the back complains that they can't see properly because the sun is shining directly into the classroom, creating a glare. But there isn't much Emma thinks she can do to darken the 1'00m or to make the transparency more readable. She decides to read what she has written slowly, so that those who can't see properly can copy down the text in their books.

As she is proceeding with the lesson, there is suddenly a scuffle at the back of the class. Mac and Alfred seem to be at the centre of it again. Alfred mutters under his breath something in Tswana, which prompts an angry response from Mac in Xhosa. Some of the Xhosa speaking gir'ls in the class express their disapproval of Mac's response and tell him not to swear like that. Because of the narrow spaces in between the desks, Emma can't get to the back of the class to sort out what threatens to become a physical fight between Alfred and Mac. Raising her voice above the others, she suggests that Alfred swops his seat with Yusuf and that whatever disagreement there is between Mac and Alfred, they must sort it out after school and not in her class. With angry looks and mutters, the two settle down and Emma can pick up from where she left off. But the momentum of the lesson has been broken, and she struggles to recapture the class' attention.

The heat seems to be getting worse and she has to speak louder and louder to make herself heard above the traffic noise. She had hoped to cover quite a bit of work during the double period, but when she asks some questions about the work she has just covered, she realizes that many of the class haven't yet understood the main points she was trying to explain. So she needs to go over them again. As she starts to explain again, she notices that Karin and Andile who are usually very quick to understand new work start to look bored. They begin a conversation among themselves and Emma gives them a pleading look. She knows that they are quick learners, but she doesn't want their talking to distract others.

In the hot crowded classroom it is difficult to maintain the learners' interest. She knows that this section of the syllabus needs to be covered in time for the assessment scheduled for next week. So Emma starts to talk a little faster, trying to get through this unexpected revision of the work. She's hoping that there will be enough time to fit in the exercise she has planned.

Because there isn't much space for movement in the crowded classroom, she can't call learners to the front to write things on the board, and it is also difficult to rearrange the desks into clusters to enable learners to have small group discussions. The last time she did this, it took quite a long time and it was a very noisy affair to get the desks rearranged. Mr Dlamini, who shares the classroom, wants the desks in rows for hisclasses, so the desks have to be put back into rows after group work. So, Emma has planned an exercise where the two learners sharing a desk can work together as a pair, without having to rearrange the desks. She has tried to pair a quick learner with one that might not have understood the work as well, but her attempts to pair certain learners has been met with great resistance. Jamil refuses to sit next to Portia whom he accuses of smelling bad. So Emma has left the learners pretty much to choose their own partners. Thlako and Mac share a desk, but although they have their' heads down, she suspects that they are not talking about the work at all, judging from their muffled giggling. But Emma can't

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get to the back of the class to check whether they are doing the work. A few of the groups put up their hands to ask her advice and she has to step over bags and squeeze in between the desks to get to them. She can't always get there. Some of the groups have finished the exercise and are starting to talk more and more loudly about their plans for the afternoon. Together with the traffic noise, this noise is making it more difficult to concentrate.

At last most of the groups have finished and Emma is about to start on the group feedback when two junior learners interrupt with a notice from the principaJ which Emma has to read out to her class. The notice calls for all players in the soccer team to meet immediately with the coach before the end of the day. That means that six of the learners in Emma's class have to go. By the time they have noisily packed their bags and manoeuvred their way through the narrow rows, another ten minutes have been wasted. Emma thinks that there might just be enough time to get feedback from two or three of the groups, but she finds it very difficult to get the class to settle down. Their thoughts are aJready on the afternoon and most of them are starting to pack away their books. Emma thinks that the only way to get through this section of work that she has planned for the day is to give it to the class for homework. As she tries to quieten the class and give them their homework tasks, the bell rings for the end of the day and with an instantaneous goodbye, the class starts to move loudly to the door.

As the last learner disappears, Emma sits down at her table and heaves a great sigh. How is she going to catch up with the work that she didn't manage to do today? And what about all that marking that is still waiting for her at home? Will she have enough time this evening? Emma looks at her watch. She has half an hour to eat her sandwich for lunch and drink a cup of tea in the staff room before taking the girls' volleyball team for their weekly practice. That means that she'll only get home after 4 this afternoon and then there is still the shopping to do before going home to cook the evening meat. Suddenly Emma feels very tired. It seems as though there just aren't enough hours in the day to do everything.

Now let's try to get a clearer idea of what is going on in Emma's class.

ACTIVITY 8

In your workbook:

1. List the ways in which you think Emma's lesson is constrained or limited by arrangements of time and space.
2. Now list all the aspects of time and space over which you think Emma herself has no control. For each item on your list write a sentence explaining why you think this is something over which Emma has no control.
3. Lastly, list the arrangements of time and space that you think are under Emma's own control and, for each item, explain why you think this.

Set aside about 30 to 45 minutes to reread Emma's case and complete the task in your workbook. Once again, we suggest that you read and assess what you have written before proceeding.

On your list of the arrangements of time that are beyond Emma's control, you probably included the school timetable. Since she is teaching in a high school, Emma is unlikely to have drawn up the timetable herself (although if she had been teaching in a junior primary school she may have done so). Part of Emma's problem in this lesson, it seems, is that the class is scheduled to meet for the last double period on a Thursday afternoon. Near the end of the school day and near the end of the week, this is not an ideal time for working with a group of boisterous adolescents. Both Emma and the learners are tired and distracted.

Emma's allocated teaching space compounds her problems with time. The classroom faces onto a noisy highway and is poorly ventilated. What is more, the room is neither a dedicated Geography classroom nor a room that Emma can call her own. She shares the room with a History teacher and has little time to prepare it

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for her planned activities. To make matters worse, the size of the classroom is not suited to the size of the class. Desks are so crammed in that Emma can't even get to the back to stop a fight. Clearly, Emma is struggling to work within the constraints of *allocated time* and *allocated space*, arrangements of external time and space are limiting her teaching possibilities.

Working within the constraints of allocated time and space

In Section Five you'll have an opportunity to reconsider the first question. In the meantime, make some brief notes on your response to the question and keep them for reconsideration when you have worked through Section Five.

Stop. Think.

Here are two questions for you to think about:

1. What can Emma do about her situation?
2. In your view, would she be justified in saying that it is not her responsibility to do anything about it?

Perhaps you think that Emma is not responsible for solving the problem. You may want to argue that the responsibility lies with the school principal or the provincial Education Department. After all, if Emma had been given a decent timetable, if she had been allocated a properly equipped and spacious Geography room of her own, and if she had not been given such a huge group of students, she would not be struggling to teach. It is tempting, but misleading, to argue in this way. This is because while it is true that a scarcity of resources has made Emma's job more difficult, it is false to think that any of us can ever escape the constraints of time and space.

All schoolteachers, no matter where they teach, work within the constraints of time and space. Part of a teacher's responsibility is to exercise her agency in finding appropriate ways of working within these constraints. Emma's success in promoting systematic learning depends crucially on how she works *with* and *within* her allocated time and space.

Time and teachers' work

Andy Hargreaves, a Canadian educational researcher, has made an extensive study of the relationship between time and teachers' work. Here's an extract from his book ***Changing Teachers, Changing Times*** (Hargreaves, 1994). As you read the extract, notice the different ways in which time is related to teachers' work.

The extract comes from a chapter entitled 'Time: quality or quantity? The Faustian bargain' from Hargreaves, A. Changing Teachers, Changing Times (Teachers College Press, 1994), p. 5, which is included in the reader for this module.

> *Teachers take their time seriously. They experience it as a major constraint on what they are able and expected to do to achieve their ends in their schools. 'No time', 'not enough time', 'need more time' – these are the verbal gauntlets that teachers repeatedly throw in the path of enthusiastic innovators.*
> *The relationship of time to the teacher runs still deeper than this. Time is a fundamental dimension through which teachers' work is constructed and interpreted by themselves, their colleagues and those who administer and supervise them. Time for the teacher is not just an objective, oppressive constraint but also a subjectively defined horizon of possibility and limitation. Teachers can take time and make time, just as much as they are likely to see time schedules as fixed and immutable. Through the prism of time we can therefore begin to see ways in which teachers construct the nature of their work at the same time as they are constrained by it. Time, that is, is a major element in the structuration of teachers' work. Time structures the work of teaching and is in turn structured through it. Time is therefore more than a minor*

If you are interested in a deeper, sociological understanding of the relationship between time and teachers' work, you might like to read the whole chapter by Hargreaves in the reader. This is optional reading for the module.

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> *organizational category, inhibiting or facilitating management's attempts to bring about change. Its definition and imposition form part of the very core of teachers' work and of the policies and perceptions of those who administer it.*

Structuration of teachers' work

For the moment, let's focus on only a few of the many interesting ideas in this extract. Did you notice that Hargreaves describes time as being a 'major constraint', and as 'a major element in the structuration of teachers' work'? Elsewhere in the same chapter, he describes time as 'central to the formation of teachers' work'. The concept of structuration is probably the most important idea in the extract. Structuration is a sociological concept that captures a two-way relationship between time and human activity: just as our activities are structured by time, so time is structured by our activities.

You are already familiar with this idea. Think about the various examples in Section Two – soccer, cricket, choral singing, and so on. All these are examples of how an activity structures and is structured by time.

What have we learnt so far?

Applied to the practice of school teaching, the concept of structuration helps us to see that:

1 Teachers' work is always structured (and so constrained and enabled) by time.
2 Teachers' work imposes a structure on time.

ACTIVITY 9

1 Reread the case study about Emma on pages 43 to 45.
2 Then, in your workbook, write one paragraph briefly describing an incident from the case that you think exemplifies or illustrates the concept of structuration.

You will need about 30 minutes for this task. To make systematic use of your time, it's a good idea to complete the task before proceeding.

From Section Two, you are already familiar with the idea that time (and space) may be structured *internally* (through the constitutive rules and definitive aims of the activity or practice) or *externally* (through regulative rules and circumstantial conditions). Hargreaves draws a different but related distinction. In the extract from Hargreaves, you will see that he distinguishes between the construction and interpretation of time *by teachers themselves* and the construction and interpretation of time *by those who administer and supervise teachers' work* (for example, school principals). He also talks about the construction and interpretation of time *by policy-makers* (for example, the provincial department of education and its officials). This suggests that teachers' time is structured at three different levels:

- by teachers themselves;
- by the principals who administer teachers' work; and
- by the government departments that make the policy for schools.

How policy-makers and school principals arrange and allocate time and space has important consequences for teachers and learners. Let's look at an example of what happens when school time and space are very poorly organized.

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3.3 Order and chaos in schools

Week 5 begins.

In 1984 Elizabeth de Villiers, a South African teacher, began work at a school where time and space were not systematically allocated. As you read the following extracts from her book, Walking the Tightrope, notice how the poor organization of time, space and teachers' work affects teaching and learning at the school. The extracts describe the state of affairs at different times during the first few weeks of the school year.

A disorderly school

These extracts are taken from De Villiers, E. ***Walking the Tightrope: Recollections of a Schoolteacher in Soweto*** *(Johannesburg, Jonathan Ball, 1990), p. 60 (Extract 1); p.62 (Extract 2); p, 65 (Exctract 3); p. 66 (Extract 4); p, 72 (Extracts 5 and 6).*

Extract 1

'You have wasted a week,' the principal tells wide-eyed children in assembly on Monday morning. 'You have wasted a whole week!' The blatant injustice of this accusation is jolting, and I look around at the other members of staff for confirmation of my thoughts. But they gaze at the gravel and show no sign of having heard anything but the undeniable truth. My thoughts whirl over the events of the past week. It is certainly not the children's fault that time has been wasted. If administrative preterm preparation of the timetable and allocation had been enforced, the pupils would be now have made a start on the year's work. Instead they have been forced, along with the staff, to chat and eat away the waiting days. The staff, moreover, have had the advantage of mobility, while the pupils have been forced to remain in stifling classrooms, becoming steadily more bored and irritable.

Extract 2

'Do you have pencils or pens?' I ask and am met by a chorus of 'No, mistress. We did not know you were coming today. No one told us!' I am incredulous and feel a bit like a strolling player who has dropped in to perform for an impromptu and hastily gathered audience.
'Are you aware of your timetable?' I ask.
'No, we are waiting for it,' they replied in unison.

Extract 3

I return to the staffroom to check on my timetable before setting out for the next class, and discover that the gremlins have been at work. With the dreadful feeling that my anticipation of eventual order has been short-lived and things once more started to fall apart, I discover a brand new sheet of paper pinned on the noticeboard. Beautifully presented in italicized script, it now offers me five instead of the previously ordained six English classes to cope with – the missing class being the one I had anticipated teaching in the next period.

Extract 4

Problems continue throughout this day and the rest of the week. Clashes of specified classes and inconsistencies are frequent. We simply have to soldier on, adapting and changing continuously in order to achieve any lessons with the children. Sometimes I am in luck, finding that I have prepared for and am teaching the right class at the right time. Still, it takes me until Thursday to meet all the classes allocated to me.

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Extract 5

The teachers are not often seen congregating in the staffroom anymore except during breaks. Their appearances in the classrooms, too, are remarkably infrequent and I often pass teacherless groups of pupils waiting disconsolately at their desks. The explanation for the latter is evidently still the confused nature of the timetable. A typical scenario is: two teachers arrive simultaneously at a class, each prepared to deliver a lesson. After an exchange of bitter words as to who has the official right of way, they both flounce of{, leaving the class unmanned. The reason for the empty staftroom is to be found in the terror campaign that Dlamini is waging among us. The pinning of the timetable on the noti-ceboard was for him tantamount to a declaration of war. 'A timetable is a work order, ' he says, waving away the innumerable complaints about its almost total unworkability.

Extract 6

The second week lurches into the third and the third into the fourth. Nothing has changed, nor does any change seem likely.

Stop. Think.

You may be shocked at the chaos depicted here or you may be all too familiar with schools that have no clear planning and few consistent rules – either for teachers or for learners. What are the causes and effects of such disorderliness and could it have been prevented? What do you think?

Take some time to reflect on the issues that are raised here.

ACTIVITY 10

In your workbook:

1. List the main causes of disorder at the school described in these excerpts from Elizabeth de Villiers' book.
2. List your suggestions for how the chaos at the school could have been prevented.
3. Briefly discuss the similarities and differences between the situation described by Elizabeth de Villiers and Emma's situation, described in Case study 1.

You will need about 30 minutes for this task. To make systematic use of your time, it's a good idea to complete the task before proceeding.

As difficult as Emma's situation is, she is not working at a chaotic school. Columbia High, where Emma teaches, seems to be fairly orderly. It is orderly because teachers know *what* subjects they will be teaching *to whom* during the year. They also know *where, when, how long, and how* often they are required to teach different classes or subjects every week of the school year. Similarly, students know *where* they should be when for each period of the school day and *who* will be teaching them *what*. Of course, there are still problems at Columbia High. It certainly does not run like clock-work. Some learners have a habit of arriving late for class, others interrupt lessons with messages from the principal, the classrooms are overcrowded and not prop-erly equipped, and so on. But teaching and learning time and space have been systematically allocated at Emma's school.

By contrast, Elizabeth de Villiers describes a chaotic or disorderly school. The school is so chaotic that it can barely function. At the start of the school year, there is no timetable. Later, when a timetable has been drawn up, it is so haphazard that two teachers arrive simultaneously at the same class and then, after 'a bitter exchange of words' leave the class 'unmanned'. By the fourth week of term, there is still confusion about teaching times and spaces. I think you will agree that under such conditions of chaos, it is difficult - perhaps impossible - for systematic teaching and learning to take place. Haphazard arrangements of time and space impede teaching and learning, rather than enable them.

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What have we learnt so far?

From our discussion so far we can draw some conclusions.

1 Our analysis of Emma's case, together with Hargreaves' account of teachers' time, have helped us to see that arrangements of external time and space constrain teaching and learning.

2 Hargreaves' account of teachers' time has helped us see that time structures teachers' work and teachers' work structures time.

3 Elizabeth de Villiers' descriptions of a disorderly school have shown, by way of contrast, that orderly arrangements of external time and space play an important part in enabling teaching and learning.

Orderliness doesn't just happen by chance. It results partly from how time and space are structured in schools and other social institutions, as well as from rules that regulate the uses of institutional time and space. This is what we will think about next.

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Regulative rules and the structure of time and space in social institutions

3.4

All social institutions have rules relating to time and space. Sometimes these rules are explicitly stated, sometimes not. Let's begin by thinking about school time and space in relation to time and space at two other kinds of social institution – factories and prisons. Although you may have no first-hand experience of factories and prisons, you probably have a rough idea of what it would be like to work in a factory or to be incarcerated in a prison.

Stop. Think.

Use your rough idea to make some notes in response to the following questions:

- Should school time and space be constructed and regulated like factory time or prison time?
- Why or why not?

Although this is not a set activity, you might like to make these notes in your workbook so that you can refer to them later.

Of course, if you wanted to give a substantial and well-grounded answer to the question, you would have to give an account of how factory and prison time and space are constructed and why they are constructed in these ways. Then you would have to comment critically on whether these ways of structuring time and space are appropriate to the purposes of schools and to the practice of teaching. So let's look at some of the regulative rules that structure time and space in factories and prisons, and then come back to the question about schools.

Factory time and space

If you have ever visited a well-run factory, you may have noticed a book that the workers have to sign when they arrive at work and, again, when they leave. Some factories have a clock for 'clocking in' rather than a book for signing in. Time is strictly allocated and controlled in a well-run factory. Rules regulating work time cover not only starting and finishing time but also lunchtime and other breaks. There are rules to restrict time-wasting activities, such as talking to fellow workers or constantly leaving the work area, and rules about output per work period. There are rules for working overtime and working short time, as well as rules for time off. All these are regulative rules because they regulate the workers' time at the factory. They also structure the activities of the factory.

Have you noticed that several of these regulative rules about time are also rules about space? This is because they regulate who may be where and when. They also regulate what may and may not be done within different parts of the factory. Some rules about uses of space and equipment will be to ensure the workers' safety; others will be to enhance productivity. Productivity is important, since the purpose of a factory is to produce goods – furniture, motor vehicles, steel rods, fabric, clothing, and so on – and to do so without financial loss. A factory's proper functioning, its productivity and its economic viability depend on how its working time and space are arranged. In other words, the functional coherence of a factory depends on a fairly rigid set of rules relating to time.

Although factory rules are fairly rigid, these days they are usually the outcome of negotiation between workers and management. In South Africa, and many other countries, the procedures and parameters for negotiation have been established by

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a set of laws and regulations passed by government. Within these parameters, rules are agreed to by workers and management as part of a contract between these two parties. Contractual rules, in this case, belong to the broader category of regulative rules.

Of course, rules on their own are not enough to ensure the orderly and productive use of time and space in a factory. From your own experience, you know that rules can be broken. This is why a framework of factory rules also incorporates details about the consequences of breaking the rules. For example, the rule dealing with work starting-time is linked to a rule on punctuality which, in turn, is linked to a set of procedures to be followed when someone is late. For a first offence there may be no more than a warning. For persistent late arrival, the procedures may allow for wage deduction or even dismissal. Because these rules have been arrived at after a process of negotiations, they generally represent the interests of workers and management. In this way, the rules play an important part in shaping activities in the factory and in promoting an understanding of the requirements for its success.

Prison time and space

Now let's think about the rules relating to time and space in a different kind of social institution - prisons. Prison time and space is even more strictly controlled than factory time and space. We speak of prisoners as 'doing time' and as 'being inside'. Both phrases remind us of how time and space structure, and are structured by, prison activities. Prison rules are designed to restrict, rather than enable, those whom they affect. The very idea of a prison is one of enclosed space, with hard boundaries between inside and outside. Thick, impenetrable walls; high, barred windows, and heavy, securely locked gates - all these help to cut prisoners off from the world outside. Prisoners are not willing participants but inmates whose agency is severely restricted. At the heart of prison punishment is a deprivation of freedom. As inmates, prisoners must be out of bed at a specific time every morning. Their meal times are prescribed, as are recreational times, time for lights out, time for visitors and, of course, time for confinement to the cell.

Where do prison rules come from? The government makes some; the prison authorities make others. But prison inmates have no say in the rules that regulate them. Unlike factory rules, prison rules are neither consensual nor contractual. Their enforcement therefore depends on *coercion* rather than on *consent*. For prison inmates there is no core practice; much of their time is spent simply in trying to get time to 'pass'. For them, prison rules are entirely restrictive, not enabling. Yet it is because the rules are restrictive that they enable the prison to fulfil its institutional function.

Although there are important differences between factory rules and prison rules, and differences in the ways in which they construct time, you have probably noticed some Similarities, too. For example, in both factories and prisons, the time/activity matrix is crucial for the proper functioning of the institution. In other words, time is an important principle of *structuration* in these institutions. Rules about time and space structure the activities and allow for their control, but the activities also structure time and space. The resulting routines help to develop and sustain orderliness.

Factories and prisons have at least one thing in common with schools - all three are social institutions. As the factory and prison examples show, for social institutions to function properly they have rules that *construct* and *regulate* the uses of institutional time and space. In the same way that rules provide order and promote the systematic use of time in institutions such as factories and prisons, so they provide the framework within which schools can function purposefully and effectively. Before we go on to consider school time and space, here's an important idea for you to hold onto:

Take note of this key point about social institutions.

Social institutions can function properly only if they have appropriate rules to construct and regulate the use of institutional time and space.

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School time and space

Now you are in a position to reconsider the questions posed at the beginning of section 3.4.

ACTIVITY 11

In your workbook, write one or two paragraphs in response to these questions:

- Should school time and space be constructed and regulated like factory time or prison time?
- Why or why not?

Clue: Think about the purpose of a school as opposed to the purpose of a factory or prison.

You will need about 30 minutes to write your response. But you may find it helpful to reread the sections on factory and prison time and space first.

The proper functioning of an institution depends on having rules to regulate the uses of time and space in the institution. But, as Activity 11 may have led you to conclude, the rules also have to be appropriate to the purposes of the institution. What does this mean? Appropriate rules and routines are those that enable and do not impede the activities and practices that the institution is supposed to support. In other words, the rules should not undermine the purposes of the institution or of its core practice.

How did you respond to the question in Activity 11? In your view, should school time be constructed like prison time or factory time? Remember that the purpose of a school is to support the practice of school teaching and that the defining purpose of the practice is to enable systematic learning. Now think about whether the sort of rules applied to time and space in a prison, or a factory, would enable or impede systematic learning. There have been times in the history of schooling when schools have been run rather like factories. At other times they have been run rather like prisons or army barracks. This is because how schools are run depends on the assumptions that are made about their institutional purposes.

In the next two sections we'll think about how school time and space are structured and at how well different ways of structuring school time and space are suited to the practice of enabling systematic learning. Section 3.5 looks at school time; Section 3.6 at school space.

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3.5 The construction of school time

Week 6 begins.

How is school time structured? Who decides? And what are the reasons for structuring school time in different ways?

Government regulations and school time

In South Africa, government regulations provide the general framework within which schools are required to arrange teaching and learning time. At the beginning of 1998, the national Department of Education established a new set of norms for time management at schools so as to prevent the kind of chaos that has made so many of South Africa's schools dysfunctional. Each provincial education department has passed a set of regulations that complies with national norms. Here's an extract from the regulative rules issued by the Western Cape Education Department in 1998. Notice the amount of time that is prescribed for the formal school day. Also, notice whether the regulations allow for discretionary time.

1. INTRODUCTION

The circular ... acknowledges the professional commitment of educators and the nature of their work and attempts to provide a framework within which their work may be regulated so as to be aligned with the 1 800 hours of work prescribed in the public sector.

2. WORKLOAD OF EDUCATORS

All educators should be at school for a minimum of 7 hours per day. Any absence during this period will be at the discretion of the principal with the proviso that the normal functioning of the school timetable is not disrupted.

Seven hours comprises about 1 400 hours allocated to the formal school day and about 400 hours for activities outside the formal school day (including 80 hours of professional development).

The work of an educator includes the core duties ... None of these duties may diminish the total amount of scheduled teaching time as per the school's timetable.

3. ADAPTING THE SCHOOL DAY

With regard to the religious and cultural needs of various communities, institutions where such needs exist may, after consultation with all role players, adapt the formal school day to accommodate these needs. However this adaptation is done, it does not reduce or in any way affect the obligation of educators to be at the school for a minimum of 7 hours a day every day, including Friday.

For both educators and learners, the last day of the school term should not be shorter that 5 hours.

During examinations, learners must be at school for a minimum of 5 hours and staff members are to be at school for the prescribed 7 hours of the formal day.

These regulations deal with 'the formal school day', that is, time to be spent on the school premises. A formal school day consists of seven hours for teachers. This is *prescribed time* for teachers - they must be at school for the specified hours, unless they have permission to be away from school. Time spent on learning outside of the prescribed time is at the discretion of the teacher who may set some tasks to do at home.

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School timetables

Within the framework of government regulations, the most important tool for structuring school time is the timetable. Let's look at a fictitious example of how a principal organizes school time.

Case study 2: Mr Speelman drafts the Grade 12 timetable

With the help of the school management team, Mr Speelman, the principal of Columbia High, has drafted three timetables for Grade 12. He has written some notes for each table. Some notes are reminders about possible problems and solutions, others are meant to help staff to understand the tables. Mr Speelman thinks that the younger teachers are quite inept when it comes to reading a timetable.

TABLE 1: WORK ALLOCATION PER SUBJECT (GRADE 12)

SUBJECT	CLASSES, TEACHERS AND PERIODS PER WEEK			LEARNER NUMBERS		
	Grade 12A	Grade 12B	Grade 12C	121	12B	12C
English first language	Ms M (8)	Ms M (8)	Ms M (8)	36	38	32
Second language	Mr R (7)	Mr R (7)	Mr R (7)	36	38	32
Mathematics	Mr P (7)	Mr P (7)	36	38		
Physical Science	Mr P (7)[1]		14[2]	22[2]		
Biology	Mrs S (7)	Mrs S (7)	Mrs S (7)	36	38	32
History		Mr A (7)[1]	Mr A (7)	16	32	
Geography	Ms D (7)		Ms D (7)	36	32	
Accountancy	Ms B (7)+	Ms B (7)		22	32	
Economics			Mrs J (7)[3]	38[2]	8[2]	
Industrial Arts			Mr X (7)[3]		13	
Home Economics			Mrs Y (7)[3]		11	

NOTES ON TABLE 1

[1] Mr P (Physical Science) and Mr A (History) have a split class. 22 of the 12Bs go to Mr P for Physical Science and the remaining 16 go to Mr A for History.

[2] Combined classes: Grades 12A and 12B combine for Physical Science; grades 12B and 12C combine for Economics.

[3] Mrs J (Economics), Mr X (Industrial Arts) and Mrs Y (Home Economics) have a split class. 8 of the 12Cs go to Mrs J, 13 of them go to Mr X, and the remaining 11 go to Mrs Y.

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TABLE 2: TEACHING TIME PER CLASS PER SUBJECT (GRADE 12)

Teacher and subject	Grade 12A	Grade 12B	Grade 12C	Total hours
Mr A (History)		5 h 50 min	5 h 50 min	11 h 40 min
Ms B (Accountancy)	5 h 50 min		5 h 50 min	11 h 40 min
Ms 0 (Geography)	5 h 50 min		5 h 50 min	11 h 40 min
Mrs J (Economies)		5 h 50 min		5 h 50 min
Ms M (English)	6 h 40 min	6 h 40min	6 h 40 min	20 h
Mr P (phys Science)	5 h 50 min			5 h 50 min
(Mathematics)	5 h 50 min	5 h 50 min		11 h 40 min
Mr R (Second language)	5 h 50 min	5 h 50 min	5 h 50 min	17 h 30 min
Mrs S (Biology)	5 h 50 min	5 h 50 min	5 h 50 min	17 h 30 min
Mr X (Indus Arts)			5 h 50 min	5 h 50 min
Mrs Y (Home Econ)			5 h 50 min	5 h 50 min

NOTES ON TABLE 2

Mr X, Mrs J, and Mrs Y have light loads. They can be allocated to teach Grades 8, 9, 10, and 11, as well as Grade 12.

Ms M is already fairly heavily loaded, but she's also the only teacher properly qualified to teach Grade 11 English. This is a problem. If she is allocated the Grade 11 English as well, she'll be teaching 40 hours a week. And she has administrative work as department head.

TABLE 3: CLASS AND SUBJECT TIMETABLE (GRADE 12) - MONDAYS

	Period 1	Period 2	Period 3	Period 4	Period 5	Period 6	Period 7
Grade 12A	Maths **(Mr P)**	Phys.Scl Account. **(Mr PI Ms B)**	English **(Ms M)**	Biology **(Mrs S)**	Geography **(Ms D)**	Second language **(Mr R)**	English **(Ms M)**
Grade 12B	English **(Ms M)**	Phys.Sc/ History **(Mr PI Mr A)**	Maths **(Mr P)**	Second language **(Mr R)**	Biology **(Mrs S)**	Economics **(Mrs J)**	Economics **(Mrs J)**
Grade 12C	Biology **(Mrs S)**	History **(MrA)**	Account. **(Ms B)**	Econ/ Indus/ Home Econ **(Mrs JI MrXI Mrs Y)**	Second language **(Mr R)**	English **(MsM)**	Geography **(Ms D)**

NOTES ON TABLE 3

50-minute periods scheduled, as requested by teachers. Will it work? The teachers and students are so used to 30-minute periods that there may be some difficulties adjusting to longer time-slots.

If you are interested in how timetables reflect a school's culture, see Meighan's chapter 'Timetables' in the reader that accompanies this module. This is not a required reading for the module, but an opportunity for you to enrich your understanding of school time.

Together these three tables are an example of how school time is constructed. A timetable codifies the deliberate allocation of time in a school. But, as you may have noticed, a timetable doesn't only allocate time; it also allocates people, places and 'subjects' or activities.

We can ask a number of different questions about timetables, depending on what

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aspect of schools we are interested in. For example, we can find out quite a lot about a school's culture and about its views on knowledge, teaching and learning by asking what principles and assumptions underlie the allocation of time at the school. Right now, our aim is to think about the timetable as a tool for bringing order to the teaching and learning activities in a school. From this point of view, there is an obvious question to ask about any school timetable: Is it viable? In other words, will it do the job of bringing order to the teaching and learning activities of the school?

Stop. Think.

What would you look for if you wanted to judge the viability of a school timetable? Pause to think about this before reading on. Now compare your suggestions with the conditions for viability that are proposed below.

Take some time to reflect on the issues raised here.

Viable timetables

To be viable a timetable should, at the very least, show *when* each teacher is teaching *what* to *which* class. In a school where the teachers move from class to class, the timetable should also show teachers *where* they will find their classes. In a school where teachers remain in their own allocated classrooms, the timetable should show *which* class is due at which times. A viable set of timetables and worktables would also need to pay some attention to:

- the sequence and timing of subjects on the timetable;
- the amount of time to be allocated to each subject per week or cycle;
- whether and when to combine classes;
- whether and when to split classes;
- possible clashes of teachers' time.

ACTIVITY 12

1. Look carefully at Tables 1, 2 and 3 on pages 55 and 56. Are they viable? Will they help to bring order to teaching and learning at Columbia High?
2. In your workbook, make brief notes on whether and how the set of tables meets the requirements for viability. Your notes should include comments about any important information that you think is missing from the tables.

You will probably not need more than about 30 minutes for this task. As usual, you might like to read and assess what you have written before proceeding.

Although there is some missing information (for example, room allocations, breaks, and assembly time), the three tables show that Mr Speelman has planned fairly carefully for the school year. All the Grade 12 teachers know what they will be teaching when and to whom; and the Grade 12 classes know which subjects they will be doing when. What is more, the timetable complies with departmental regulations about the prescribed number of teaching hours per week. At Columbia High the *allocated teaching time* per subject complies with the *prescribed teaching time* – at least in the case of Grade 12. So far, so good – the timetable for Grade 12 seems to be viable.

Appropriate timetables

We've seen that Mr Speelman's timetable is viable, but is it appropriate? Has teaching time been arranged in a way that will help to promote systematic learning? In other words, does the timetable fit the institutional purposes of a school and the formal purpose of school teaching? Would the same kind of timetable be appropriate for a primary school, and for a Grade 1 class? To help you reach your own provi-

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sional answers to these questions, we can think about a number of other, related questions:

- Why should periods be SO minutes rather than, say, 30 or 35 minutes long?
- Should any subjects or activities be allocated double periods? Why?
- Should certain subjects or activities be allocated preferential time? Why?
- Do the arrangements of time provide favourable conditions for learning?

As you read through the discussion below, keep the following idea in mind:

A feasible and appropriate timetable structures school time in a way that helps to promote systematic learning.

Duration of periods

Let's begin with the length or *duration* of periods. The first two questions on the list are both about duration. Tradition and school ethos often playas great a part in influencing the timetable, as do practical or educational considerations. Some schools work in 30-minutes slots because they have always done so - or at least for as long as anyone can remember. To change the length of the period would be to break with long-standing tradition.

In the timetable for Columbia High, Mr Speelman has opted for seven 50- minute periods per day (see Table 3). This is a break with tradition. Previously the school was run on 30-minute periods. We know that Mr Speelman has changed this in response to a request from teachers (see the notes to Table 3) but we don't know why they have made this request. Perhaps it was for practical reasons. For instance, SO-minute periods will reduce the number of times the learners have to move from room to room. Reducing the movement of large groups of learners could help to reduce disorderly behaviour and disruptions to the school day.

But perhaps the request reflects a particular view of teaching and learning. In other words, the length of periods may have been decided on pedagogical rather than practical grounds. For example, while a 30-minute period may be suited to rote learning of facts, it is too short a time for critical discussion, group problem-solving or scientific experimentation. This is why many schools allocate double periods for science, especially in the senior classes. Perhaps there are good reasons why subjects other than science should also be given longer periods. For example, in 30-minute periods, it is very difficult for teachers to set activities in problem-solving, critical discussion and group decision-making. As you may know, South Africa's policy of outcomes-based education requires teachers to enable learners to develop their capacity for critical inquiry, co-operative work, creative thinking, and so on. Perhaps outcomes-based education needs longer periods to be effective.

Stop. Think.

Take some time to reflect on the issues raised here.

Earlier on, we asked whether it would be appropriate for a Grade 1 class to have a timetable similar to the Grade 12 timetable shown in Table 3. There are several strong reasons for answering 'No' to this question. Can you think of any? Think about the age and abilities of the learners; think about the structure of the curriculum in the foundation phase; think about the kinds of things that you would have to teach young children entering school for the first time.

You might like to make some brief notes about your thoughts. You will have an opportunity to reconsider your ideas in Section Four when you examine the relationship between length of period, approaches to teaching and learning, and the age, abilities and interests of learners.

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ACTIVITY 13

This investigative task requires you to do some of your own 'research'.

1. Find a South African example of a Grade 1 timetable and try to find out who drew up the timetable (the teacher, a group of teachers, the principal, the provincial department?).
2. Paste a copy of the timetable into your workbook and write a brief note acknowledging the source of the timetable (that is, say where it came from and who drew it up).
3. Write a detailed account in your workbook of the similarities and differences between Mr Speelman's Grade 12 timetable and your example of a Grade 1 timetable.
4. Say whether you think the differences between the Grade 12 and Grade 1 timetables are appropriate. Give reasons for your answer.

As this is a 'research' task, it will take you longer than the other tasks you have undertaken so far. First, you will need to schedule time to find a recent Grade 1 timetable. If you are a pre-service student teacher or if you are not teaching at a primary school, you will have to contact a teacher, principal or lecturer who can help you. For the written part of the task you will need about 60 minutes.

Primary schools, especially in the foundation phase (that is, junior primary), structure time differently. Class teaching rather than subject teaching is the norm and since a foundation phase teacher spends most of her day with a single class, she is able to use time flexibly as long as she complies with departmental prescriptions about the amount of time for different areas of the curriculum. For example, in Gauteng schools Grade 1 learners have four hours a day of formal learning time. One hour a day is prescribed for each of the core learning programmes, that is, Mathematics, Communication and Life Skills. The fourth hour is *discretionary time*. Schools may choose how to use this time, so long as it is used for learning activities.

Janet Moyles discusses primary school timetables in her book *Organizing for Learning in the Primary Classroom* (Methuen, 1992). If you are interested, see her chapter 'Time for teaching and learning' in the reader for this module.

ACTIVITY 14

Have another look at the Grade 1 timetable you analyzed for Activity 13. In your workbook, write short notes in response to these questions:

1. Does the timetable reflect the prescribed time for the three core learning areas? If so, in what sequence?
2. How does the timetable break down the hours of discretionary time?

You will need about 10 minutes for this task.

Preferential time

We have been thinking about the duration of school periods. Let's now consider the claim that some subjects should be given *preferential time*. This is the idea that certain subjects – for example, mathematics and the sciences – should be taught in the morning because they require greater 'mental ability' and concentration than other subjects. Practical subjects such as handwork and art, it is assumed, do not make the same intellectual demands on learners and so should be scheduled later in the day. Think for a moment about your own schooling: Were subjects like mathematics allocated preferential time? Have another look at the Grade 1 timetable that you included in Activity 13. Are any of the learning areas given preferential time?

Why is preferential time given to some subjects? Some people argue for preferential time on *pedagogical* grounds. A pedagogical argument is one that focuses on the requirements for enabling learning. The argument that mathematics should be taught in the morning because it is intellectually demanding could be a pedagogical argument. If we add that learners concentrate best at the beginning of the school day and so are better able to learn at this time, then we will have the premises for a valid argument. Whether it is a good or sound argument is still open to question. We can raise questions about the supporting evidence for the claim that learners concentrate better at the beginning of the school day. We can also raise questions about the assumption that mathematics requires greater concentration than does art or geography, for example.

There is another way of looking at preferential time. Some writers suggest that preferential time is not so much a pedagogical matter as one that has to do with the *micropolitics of schooling*. In other words, preferential time may reflect relationships

If you are interested in this line of argument. have a look at the section on 'Micropolitical time' in the chapter by Hargreaves in the reader that accompanies this module.

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of power and status. Because mathematics is high-status knowledge, so the argument goes, it is given preferential treatment.

Timetables and the conditions for learning

The final question on my earlier list asks whether the arrangements of school time provide favourable conditions for learning. I am sure you will agree that this is the most crucial question on the list. Answers to the other questions about duration and preferential time are all linked to this question. If the arrangements of school time do not provide favourable circumstances for learning, then they are inappropriate. Such arrangements do not fit the institutional purpose of school, which is to support the promotion of systematic learning. How can you tell if arrangements of external time are suited to enabling systematic learning? Section Four explores some aspects of this question. A full answer to the question probably requires an account of how people learn but that is outside the scope of discussion of this module. You might like to refer to another module in this series called Learners and Learning for more discussion of this matter.

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The construction of school space 3.6

When we speak about the construction of school space, the word 'construction' has at least two meanings. The buildings, the layout of the grounds and the use of boundary markers such as walls or fences are all part of the physical construction of school space. But school space is also constructed by the rules for how and when the space may be used and by whom. If you think back to our discussion of time and space in factories and prisons, you will remember that those social institutions, too, have rules that construct and so structure institutional space.

Week 7 begins.

The physical construction of school space

The physical construction of school space (that is, the buildings and grounds, and the relationship between them) suggests possibilities for teaching and learning and at the same time, sets constraints on what can be done. School buildings and the layout of school grounds also provide interesting examples of different layers of meaning. A school building presents a different experience to each group of people involved. To learners it is a place of pleasure and interest, or pain and boredom, where a large part of one's early life is spent or misspent; to teachers it is a place of work – for some a place of professional fulfilment, for others a place of stress and frustration. The layout and uses of school buildings and grounds also imply ideas about schooling that we often take for granted. For instance, in South Africa the physical size of classrooms is based on an assumption that class-size will remain static and that the 'right' class-size is somewhere between twenty and thirty students. As class-sizes 'grow' the rooms become 'too small'.

ACTIVITY 15

Spend 60 minutes on this task.

1 First look carefully at the three schools illustrated on pages 62 and 63. Then, in your workbook:

a Write a short comparison of the three schools, using the following check-list as a guide:
- general-purpose teaching rooms, e.g. classrooms;
- specialized teaching spaces, e.g. science laboratories, libraries;
- multipurpose rooms, e.g. halls;
- circulation space, e.g, corridors;
- administration space;
- spaces for learners' recreation and 'time-out'. e.g. sports fields, play-grounds;
- spaces for teachers' 'time-out'. e.g. staff-room.

b Comment briefly on what each of the three physical constructions suggests to you about:
- the relationship between teachers and learners;
- the teaching and learning possibilities of the building;
- the limitations set by the building and grounds;
- whether the buildings and grounds are suitable for their purpose (primary school or high school).

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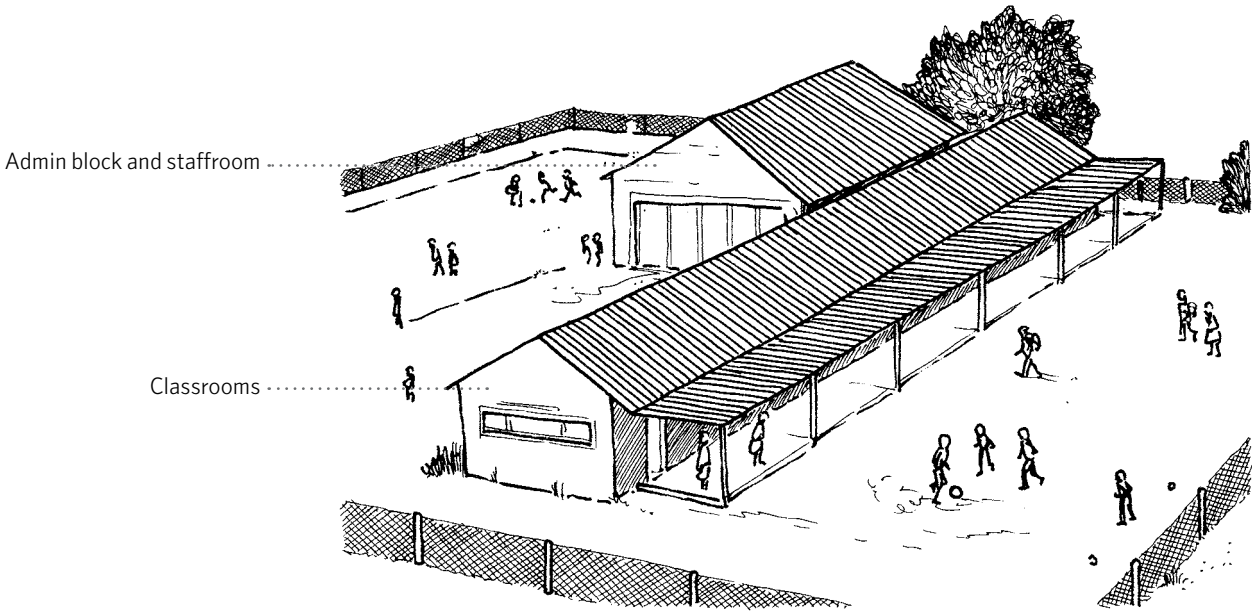
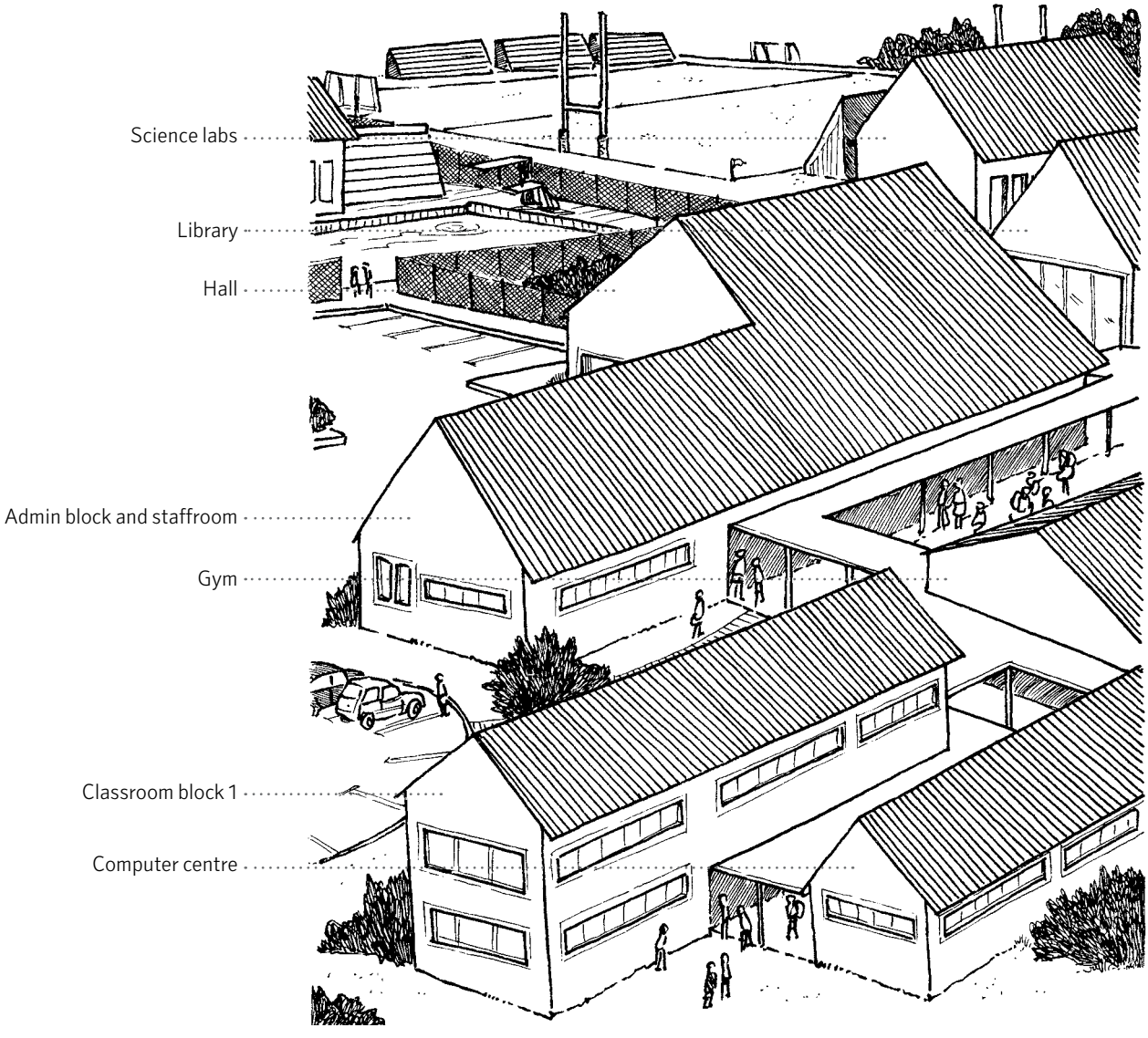


School A



School B

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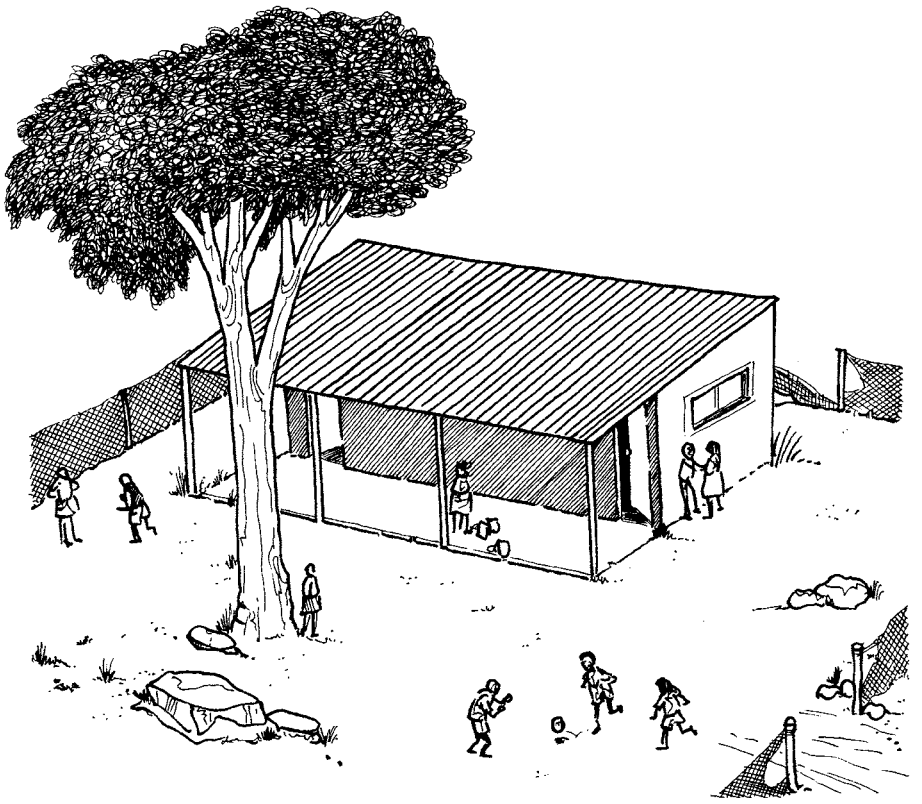

School C

Rules and school space

In South Africa the rules that regulate the uses of school space, like the rules that regulate school time, are made within the framework of departmental regulations. The regulations stipulate that schools should be used primarily for the purposes of organizing and promoting learning. Activities like running a supermarket, a bank or a shebeen do not comply with this stipulation and so are forbidden. Within the framework of departmental regulations, the school principal is responsible for allocating teaching and learning space. Some principals delegate this responsibility to a deputy or to a space committee.

Let's eavesdrop on a meeting at Emma's school, Columbia High, where Mr Speelman and his staff are talking about space allocation:

Case study 3: A staff meeting

MR SPEELMAN: I believe some of you are worried about teaching space. This new OBE policy, so you say, needs more space as well as more time. *(He nods at Emma, who has raised her hand to speak.)*

EMMA: OBE or no OBE, I would really like a bigger classroom for geography. One that I don't have to share with someone teaching another subject. It's so frustrating trying to do group work and map-reading activities in an overcrowded room. *(Emma notices that Mr Dlamini, the Grade 10 history teacher, hasn't come to the meeting and decides to speak out.)* I can't arrange the room for proper group discussion when Mr Olamini insists on straight rows of desks for his history lessons. There's just never enough time for me to rearrange desks between periods, especially when the class arrives in dribs and drabs.

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MR SPEELMAN: Thank you Emma ... Yes, Mr Bala?

WOLE BALA (a new science teacher who hasn't yet started teaching at the scnoot): I'm not yet familiar with how things work here. Is each teacher allocated a classroom so that the students move from class to class? Or do the students have a homeroom and the teachers move from class to class?

MR SPEELMAN: The former. Each teacher is allocated to a classroom for the year. Learners move from class to class. We've tried it the other way, but the staff convinced me they could work more efficiently if they had their own classrooms. Of course, some teachers still have to share a room ... like Emma and Mr OIamini. Short of building an extra classroom, there's nothing I can do.

WOLE BALA: I would have my own laboratory, surely? After all, science is a high priority subject ...

MR SPEELMAN: I'm not a magician, Mr BaJa. The school has one lab and three science teachers. All three of you need to use it and you can't all be there at once ...

BlJLELWA (interrupting emphatically): listen, at least the science teachers have a lab even if they have to share it and it isn't very well equipped. But we need other rooms to be dedicated to specialist activities. Rooms for woodwork, typing, home economics, and even geography – all the subjects where equipment is crucial. The very idea of a specialist room is that it will be fully equipped and not be used for any other subject. Why do you think the results are so good at privileged schools like Buxton College? (She addresses the assembled staff, who are a bit uneasy about how Mr Speelman will take this outburst) ... Because they have properly equipped, specialist rooms, that's why. It's our right to have equal facilities. Is there nothing we can do to get the department to deliver on this? Why is the school governing body not making a noise about this?

YASMINE (who is hoping for a promotion): Frankly, Mr Speelman, I don't know what everyone is carping about. Columbia is a very well-organized school. One just has to look around to see that things are functioning properly. lJnder your leadership (she smiles at Mr Speelman), we know how to make the best of what we've got. (She doesn't notice Emma raising her eyebrows in disgusl.)

JOE (a student teacher): Excuse me, Sir, as part of my college assignment I'm supposed to find out what it means to organize a school ... ;'

MR SPEEIMAN: Yes, young man, how can we help you?

JOE: Well, I've noticed that at Columbia High the school hall is used for all sorts of activities – the weekly assembly, of course, but also for physical education when it is raining and for large class groups when there isn't space to accommodate them elsewhere. The hall even seems to be used as a place where the kids ... sorry, I mean learners ... can relax and play table tennis at break. I was wondering how these activities are co-ordinated to prevent clashes and confusion. Another thing: are teachers – or should I call them educators? - in any case, are they permitted to use corridors and the playground for group activities. We've heard at college that ... I quote my lecturer 'the timetable is the vital administrative instrument to regulate the use of multipurpose areas' and that it's possible to use corridor space creatively and ...

MR SPEEIMAN (interrupting): You seem to be very well informed, young man ... Now shall we get on with the main business of the meeting?

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ACTIVITY 16

The teachers in the staff meeting mention at least four different ways of allocating space. What are they? And, in your view, what are the advantages and disadvantages of each?
Pay special attention to how different allocations might enable or impede the promotion of an orderly teaching and learning environment. Present your findings in your workbook, in a table like the following:

Set aside 30 to 45 minutes for this task. You will be in a stronger position to engage in the discussion that follows if you complete the task and assess what you have written before proceeding.

WAYS OF ALLOCATING SPACE	ADVANTAGES	DISADVANTAGES
1		
2		
3		
4		

You may have concluded that each way of allocating space has both advantages and disadvantages. It can be argued that each way is enabling in some respects and restricting in others. Do you agree with this?

Providing teachers with their own rooms

One way of allocating space is to provide teachers with their own rooms. An obvious advantage is that this enables teachers to create a learning environment that reflects the nature of their subject or learning area. If imaginatively used by teachers, this arrangement helps in developing the learners' appreciation of the special features of different subjects and so may enhance the conditions for purposeful learning. Another advantage is that this arrangement allows teachers a greater sense of ownership and control over their work.

One disadvantage of allocating rooms to individual teachers is that it does not allow classroom use to be based on need. Here is an example to illustrate this point. Suppose that a teacher, Mrs Twala, is allocated Room 24, the biggest classroom at the school. This is because she teaches two classes of more than 50 learners and only Room 24 is able to accommodate such large groups. However, all Mrs Twala's other classes have fewer than 25 learners. Yet she uses the same room for all her classes, while another colleague has five classes, each numbering between 45 and 50 learners. These learners have to cram into Room 22, which was designed for a maximum of 40 people. Under these circumstances, it would have been better to reserve Room 24 for the use of excessively large class groups rather than dedicating it to one teacher.

Another disadvantage of allocating rooms to teachers is that learners have to move every 35 or 50 minutes. If not properly managed, this can result in disorderliness, as well as a good deal of time-wasting. Think back to Emma's Grade 10 geography lesson in the case study on pages 47 to 49. The class arrives in dribs and drabs, with some arriving well after the starting time for the lesson. Some schools overcome this disadvantage by having strictly enforced rules for learners' movements from lesson to lesson.

Allocating classrooms to learners

A second way of using school space is to *allocate classrooms to learners* and have the teachers moving from class to class. This may enhance orderliness because large groups of learners will not be moving from class to class at the end of every period. It may also allow for better use of teaching and learning time because learners are able to prepare for the following lesson in between periods. Another advantage of allocating rooms to learners is that it may help to give them a sense of ownership and pride in their learning space.

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From a teacher's perspective, there are several disadvantages. It limits the teacher's options for the preparation of her work. Since all teachers who teach a particular group of learners use the classroom, it cannot easily be reconstructed into a 'subject room'. Even the blackboard has to be shared and work cannot be left for the following class or the next day. This may lead to frustration, loss of morale and friction between teachers.

Allocating specialist rooms to specialist teachers

A third option, which is a compromise between the first two options, is to allocate 'specialist rooms' to specialist teachers, while allocating other rooms to learner groups. This option acknowledges that certain subjects – like physical science, typing and woodwork – need specialized equipment that cannot be moved from room to room. But there's a further argument and that is some subjects -like mathematics – are so specialized that they ought to have their own space even if they do not have heavy or immovable equipment. The main objection to this further argument is that it may lead teachers and learners to elevate certain subjects above others and so to rank learners according to their selection of subjects. No doubt you can think of some examples from your own experience.

Allocating space according to need

A fourth way of organizing school space is *on the basis of need at any particular time.* So, drawing from our earlier example, Mrs Twala, the teacher with the two large class groups would use Room 24 only when she teaches these groups. Other teachers with large class groups would use this room when they needed the bigger classroom. The advantage of this kind of arrangement is that it reduces the possibility of disorderliness in the classrooms and gives teachers enough space for group work, classroom drama, and so on. More generous classroom space also allows the teacher to move freely through the room, checking on the progress of individual learners and groups as they work on set activities.

A possible disadvantage of organizing space according to need is that it discards the ideas of ownership and of space with a strong subject or learning area identity. As a result, learners and teachers may be left with a sense that there is no particular area in the school with which they can identify. I think this would be a more serious disadvantage in a primary school (especially in junior primary) than in a high school. What do you think? Even in a high school, the lack of a sense of ownership could undermine teachers' and learners' pride in the school and so affect their willingness to maintain any part of it. Also, the school's sense of purpose and direction might be affected in such a way that it would impair the school's discipline.

Two more ways of allocating teaching and learning space

There are two more ways of allocating teaching and learning space at schools, both of which combine options we have already discussed:

1 Cluster the classrooms for learners in the same grade.
2 Cluster the classrooms to be used for the same subject or learning area.

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The first kind of organization helps to limit learner movement, especially if teachers are allocated teaching responsibilities using the same principle, namely, that each teacher is given class groups at the same level. This form of classroom allocation promotes orderliness in a number of different ways. The Grade 12 groups, for example, could develop a collective responsibility for the area allocated to them. An important advantage of this type of organization is that it allows learners of similar ages to interact with one another more closely than would normally be the case. This is a common way of organizing space in junior primary schools

The second type of organization allows for the creation of subject or learning area blocks. The advantage of this type of division of space is that it enhances the possibility of sharing resources, especially specialist equipment. It also creates the space for teachers to develop their areas to reflect their subjects, as was the case for individual teachers, so that the learners can identify with specific areas in the school.

Despite obvious advantages of this type of arrangement both for school discipline and in raising the awareness of learners, it is based on some questionable assumptions. Teachers often have to teach a range of different subjects, especially in primary and junior secondary school. Allocating space by learning area or subject blocks can work efficiently only if teachers are assigned to teach within a single subject or learning area and not across a range of subjects.

Primary schools differ substantially from high schools in the way they are organized. Generally speaking, primary schools (especially the junior primary classes, as we have seen) are organized according to class- rather than subject-teaching, which means that a class teacher teaches virtually every subject in the curriculum. In the junior primary (or foundation phase) both teacher and learners have 'ownership' of the classroom. What does this mean for teachers and learners? To a far greater extent than high school teachers, primary teachers are able to arrange their rooms in order to provide an atmosphere of learning. Primary school learners are more likely to have a sense of belonging since this arrangement of space encourages them to identify with both the teacher and the classroom. Also, within primary classrooms, learning space is ideally subdivided into smaller areas to allow each learner to 'claim' a bit of space for herself and so enabling her to organize space to suit her learning needs and interests. The construction of teaching space in primary schools helps to develop a sense of pride amongst both learners and teachers and this is a key factor in enabling purposeful work.

ACTIVITY 17

Reread the discussion of different ways of arranging the allocation of classroom space and think about the advantages and disadvantages of each. Then, in your workbook, write a page in response to the following question:

As a teacher, which way of allocating classroom space do you think would best enable you to fulfil your responsibility for promoting and developing systematic learning? Give reasons for your answer, taking account of what subject(s) and what level you teach.

This task will take 30 to 45 minutes.

Looking at other school spaces

So far, our discussion of teaching and learning space has focussed on classroom space, but classrooms are not the only school spaces that can be used to promote and enable systematic learning. Most schools consist of more than only classrooms, although there are some that have no built spaces at all - the 'classroom' may be a sandy clearing under a tree. Schools with classrooms usually also have playgrounds and corridors. Many have halls, libraries, laboratories, and sports fields, too. How these other spaces are organized and used can either promote or impede teaching and learning.

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You will need about 30 minutes to complete this task and to reread and assess what you have written.

ACTIVITY 18

Have another look at the three schools illustrated on pages 62 and 63.
In your workbook:

1. For each school, list all the spaces other than classrooms that you think would normally be used for teaching and learning activities. For each space, say what kind of learning activity would normally take place there.
2. Now, for each school, list all the spaces that *could* be used for teaching and learning but are not usually used for this purpose. For each item on your list, say briefly *how* you think it could be used.
3. Choose any two items from your list for 1 above and, for each, write down three rules you would set to ensure these areas are used in a way that suits their purpose.
4. Now choose any two items from your list for 2 and, for each, write three rules you would set to ensure the proper use of the area.

Let's think about the school library as an example of a place that can be used to enable the activities of teaching and learning. Where schools do have a library (and many in South Africa do not), its use should be both encouraged and regulated. A library that is locked up most of the time can't serve its purpose as a resource centre for teaching and learning, nor can a library where the books can't be found because they are shelved haphazardly and there is no system for tracing which books are out on loan. A school library that is seldom used can't serve its purpose as a resource centre for learning, but a library that has too many users at once may also fail some of its users. This is why a well-run school usually timetables library sessions for different classes and ensures that the library stays open after formal school hours.

The school hall is another example of a space that is often used for a variety of activities, some of them extra-curricular. For those schools where there is a hall, it may be used for assembly, as an additional teaching area, for school plays, for physical education lessons, and for recreational purposes during break and after formal school hours. The hall is also an important space for forging a school community with shared vision. And even where there is no hall, well-functioning schools have a shared place where everyone can assemble regularly to be informed of school activities (for example, sports, cultural activities or achievements of individuals or groups of learners) and to talk about common problem areas (for example, absenteeism, discipline or commitment to learning). This is the place where the school's achievements are given recognition, where parents and other members of the community come and meet teachers and learners and where honoured guests are presented to the school community. School ceremonies such as assembly, prize-giving and sports day are consensual rituals that help to bind the members of the school together as a moral community and this contributes to maintaining the order that is necessary for systematic teaching and learning.

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Concluding comments 3.7

In this section we've examined some of the ways in which arrangements of external time and space either enable or impede the work of schools. The practice of school teaching and its activities are shaped by these arrangements of external time and space. Teaching cannot proceed smoothly if external time and space have not been arranged so as to provide a stable and orderly institutional environment.

What have we learnt so far?

In Section Two, we considered a range of activities in which rules restrict the participants and, at the same time, *enable* their participation. This concept of rules as both restricting and enabling is central to the arguments throughout the module.

In Section Three we considered this concept in relation to the structure of school time and space. Institutional rules are *restrictive* because they limit the options that principals and teaching staff have in their allocation and use of teaching space and time; they also restrict learners' behaviour and interactions. The rules are *enabling* because they enhance the possibility of systematic learning.

The next two sections use the same set of concepts in thinking about how teachers shape the space and time that has been allocated to them for the purposes of enabling systematic learning. Before proceeding with Section Four you should complete Tutor-marked Assignment I, which you will find on the next page.

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This is the work for weeks 8 and 9. Spend some time revising the work done so far before writing your essay. You might like to read some of the optional readings.

Tutor-marked assignment 1

Choose one of the following assignments:

1 Carefully read this quotation and then write an essay in response to the question that follows:

> *Teachers are responsible for engaging students in formal curriculum activity ... In doing this, they depend heavily on organizational support and, in particular, the predictability of ritual, the disciplinary sanctions of a set of structural authority relations and the security – material and symbolic – provided by school boundaries.*
> *As organizations, schools are structured around axes of time and space, which constitute significant boundaries for learning and teaching. They are symbolic as well as material boundaries and they are predicates for school discipline. (Christie, 1998, p. 287.)*

Do you agree that time and space constitute significant boundaries for learning and teaching at schools? In justifying your answer, provide your own supporting examples and make use of the following concepts:

- external time and space;
- internal time and space;
- formal purposes;
- practices and institutions;
- rules;
- construction of school time and space.

OR

2 'School teaching is a practice that is both constrained and enabled by arrangements of time and space.' In your own words, present a systematic argument in support of this claim. Your argument should make use of relevant key concepts from the module. Try to give some of your own supporting examples to illustrate your main points.

Assignment guidelines

This assignment is designed to assess your ability to draw together and reflect on some key issues and concepts from the first two sections of the module. You should write the assignment as an essay that develops a strong argument leading to a clear conclusion. Before you begin writing, think carefully about how you will structure your essay and about the examples and concepts you will need to develop a coherent argument.

Your essay should be about 1 000 to 1 250 words (three or four A4 pages) in length and should be submitted to your tutor as a stapled set of pages. You might want to paste it in your workbook once it has been assessed and returned to you. If so, write only on one side of each sheet.

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SECTION FOUR

Classroom time and space

How teachers shape classroom time and space for different purposes and different learners

Classroom time and space

A schematic story of Section Four

How teachers shape classroom time and space for different purposes and different learners

Reflecting on your own experiences of classroom time and space

Reflect on your experiences of *physical space* in classrooms.
Reflect on your experiences of *clock-time* at school.

(SECTION 4.2; PAGES 75 - 77)

Arrangements of space and time shape, and are shaped by, our ways of doing things

Physical arrangements convey different messages about how to behave.
Different arrangements have different purposes.
When we arrange a space, we can do so for both *practical* and *symbolic* reasons.
When we arrange a classroom, we need to think about the *purposes* of our teaching and about what ways of *acting* we want to encourage.

(SECTION 4.3; PAGES 78 - 81)

Different arrangements of time and space for different teaching and learning purposes

Think about different kinds of learning and their enabling arrangements of time and space:

- learning that;
- learning how;
- learning to be;
- learning and play;
- learning and imagination;
- silence, solitude, and intellectual space.

(SECTION 4.4; PAGES 82 - 87)

Teachers can achieve an orderly learning environment through:

rituals;
routines;
rules.

(SECTION 4.5; PAGES 88 - 91)

Different arrangements of time and space suit different learners:

young learners and older learners; learners from different socio-economic backgrounds; novices and experts; learners with special educational needs.

(SECTION 4.6; PAGES 92 - 98)

Ideas for shaping classroom time and space to maximize learning time

Use the constitutive rules of teaching to help you to guard against inappropriate efficiency.
Define limits in the classroom.
Consider pacing and timing.

(SECTION 4.7; PAGES 99 - 103)

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4.1 What can you hope to achieve by working through this section?

Week 10 begins.

Section Four focuses on internal arrangements of time and space and how these affect teaching and learning. By the end of the section you should be able to use the following concepts to help you think about how to arrange classroom space and time for purposeful learning:

- physical space and clock time;
- external and internal time and space;
- practical and symbolic reasons;
- allocated and engaged time;
- clock-time and lived time.

On the previous page you will find a map of the main concepts and key points in Section Four.

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Classroom time and space and their role in teaching and learning

4.2

Section Three considered the relationship between *external* time and space and the orderly functioning of a school. Here we will think about classroom time and space and their role in creating an environment for systematic learning. This is the sphere within which teachers exercise their agency – and thus their responsibility - in arranging the internal time and space of teaching and learning.
By the end of this section you should be able to answer two central questions related to classroom time and space:

1 How can teachers arrange classroom space and time to promote systematic learning?
2 How does the organization of *internal* space and time constrain and enable teaching and learning?

If you think back to the discussion in Section Two, you'll realize that both of the above questions have to do with the *formal purpose of the practice of teaching*. Rather than answering these questions directly, we will provide some conceptual tools, illustrative examples and supporting readings to help you answer them for yourself. The first question is concerned mainly with the *regulative rules* that teachers need to set for using time and space in the classroom. The second question is concerned mainly with *constitutive rules* for teaching and learning.

Remembering your own experiences of classroom time and space

Here are two introductory activities to get you thinking about your own experiences of classroom space and time. The first activity focuses mainly on *physical space*, the second mainly on *clock-time*. Many of the questions are connected to key points from Section three, only here you will be thinking about them in relation to your own previous experience as a learner rather than from the perspective of a principal or teacher.

ACTIVITY 19

1 Try to remember two classrooms from your own experience – one from your early years at primary school, the other from your final year at high school. In your workbook, draw up two lists – one for each classroom- and write down all the details you can remember about the physical space in each classroom. Try to include details about:

- *physical structure* (for example: size and shape of the classroom; windows and doors; type of floors, walls, and ceiling);
- *fixtures* (for example: lights, chalkboard, taps, basins, electrical plug points);
- *furniture* and its arrangement (for example: double desks arranged in rows or groups, teacher's table, bookshelves);
- teaching and learning *resources* (for example: books, posters, over- head projector and screen, maps and globe);
- *situation* or locale (for example: upstairs or downstairs, next to a noisy road, near the toilets, south-facing and extremely cold);
- classroom *atmosphere* (for example: friendly and inviting; bleak, dirty and run-down; intimidating).

For Activities 19 and 20, give yourself time to remember. Try to set aside two hours of quiet, uninterrupted time, possibly with a 10-minute break between activities.

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2 Now read your lists carefully and write brief notes in response to the *following* questions:
   - Are there any striking differences between the two classrooms? What are they?
   - Which, if either, of the classrooms provided the better space for systematic learning? Why?
3 Read through your lists again and identify any listed items that give clues about what kind of classroom it is. (A junior primary classroom may have a discovery table and a toy box; a science lab may have test-tubes, beakers and bottles of chemicals; a geography classroom may have maps, globes and models of volcanoes; an English classroom may have posters of well-known writers or charts showing the formation of different tenses.)

ACTIVITY 20

Think back to your final year at high school and then, to the best of your memory, answer the following questions in your workbook:

1 Which subjects were usually scheduled for the first two periods of the school day? And for the last period?
2 Which subjects appeared on the timetable every day and which only once or twice a week?
3 In your opinion, what might have been the reasons for regularly scheduling particular subjects at the beginning of the school day and others at the end?
4 How long was each period? Did you have any double periods? If so, for which subjects? How frequently did you have a double period (once a week, every day)? What might have been the reasons for scheduling a double period for these subjects?
5 As far as you remember, in which subjects were the periods used most productively for systematic learning? Were there any subjects where periods were a waste of time? Why?
6 Class time is often interrupted – for example, by messages from the principal. List some of the kinds of interruptions that you remember from your own schooling.
7 In some South African schools there is a timetable but no one bothers to see that it is followed. Sometimes classes happen at the scheduled time; sometimes they don't. And some schools have no timetable at all. If you have experienced a school where there is no timetable or one where the timetable is not followed, jot down some of your memories of how the lack of a timetable affected teaching and learning at the school.

Teachers as agents responsible for organizing classroom space and time

In these first reflections on your own experiences of classroom space and time, you may have noticed how the organization of space and time shapes what happens in classrooms. As a teacher you will have to regulate and order the use of classroom time and space in a way that enables systematic learning. In other words, you will be the agent responsible for appropriate arrangements of learning space and time. We saw in Section Three that a well-functioning school depends on a set of regulative rules for ordering school life and the school programme. Similarly, a well-functioning class- room depends on a set of regulative rules that help to organize systematic teaching and learning. Regulative rules, you will recall, are 'governing rules' that define limits or boundaries for different activities, they define the ways in which time and space may be used.

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Stop. Think.

Take some time to reflect on the issue being raised here.

What kinds of things will you have to think about in deciding how to regulate the activities in your classroom and establish it as a genuine learning environment?

The reflective tasks you have just completed suggest some aspects of space and time that teachers have to regulate to assist learners in developing habits of attention, inquiry and exploration. Of course, you may not be able to regulate them all yourself. When you begin teaching, you are unlikely to have much say over the school timetable or over the allocation of classrooms. You will also probably not have much say over the allocation of teaching resources in the school. You may find yourself with a run -down, poorly equipped classroom in a cold and noisy part of the school. What matters is how you arrange the time and space allocated to you and how these arrangements shape the ways of doing things in classrooms.

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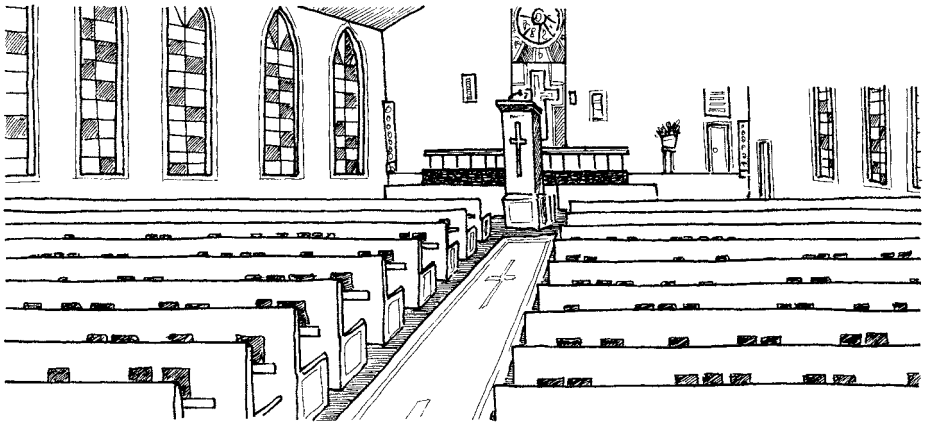
4.3 How arrangements of time and space shape, and are shaped by, our activities

Section Two considered how arrangements of time and space shape, and are shaped by, different activities – for example, soccer and choral singing. To help you deepen your understanding of the relationship between time, space and human activities, let's now have a look at how spatial and temporal arrangements in rooms other than classrooms shape our ways of doing things.

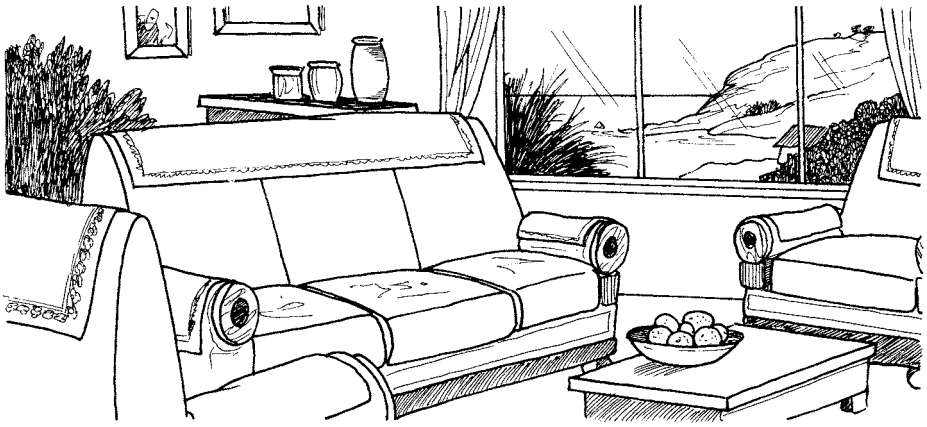
Set aside 45 to 60 minutes for this task. It's important for you to complete all parts of the task before proceeding.

ACTIVITY 21

Here are pictures of two different spaces. Picture A is a church interior; Picture B is a lounge.



Picture A



Picture B

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1 In your workbook, make two columns. Head the left-hand column 'Picture A: church' and the right-hand column 'Picture B: lounge'. Now do the following:
- **a** In each column write a sub-heading 'Physical arrangements'. Now, for each picture, note in point form the type of furniture, the way it has been arranged, the types of wall decorations, the placing and type of windows, and other physical details.
- **b** Now think about the differences in the use of time in a church and in a lounge. In each column, make a note of these differences under a sub-heading 'Arrangements of time'.
- **c** Think about why a church and a lounge have different uses and arrangements of space and time. Write another sub-heading, 'Purposes' in each column and make some notes about why you think the church is arranged as it is and why the lounge is arranged as it is.
- **d** Imagine yourself in the church in the picture. How would you behave? How do people usually behave in a church? Would you behave in the same way as you would at home in your lounge with friends? Write a new sub-heading, 'Ways of behaving' in each column in your workbook. In point form, make some notes on the way people behave in a church and the way they behave in a lounge at home.

Here's an example of the sort of chart you could compile:

Picture A: church	Picture B: lounge
Physical arrangements:	Physical arrangements:
Arrangements of time:	Arrangements of time:
Purposes:	Purposes:
Ways of behaving:	Ways of behaving:

2 Reread what you have written on your chart. Now write a paragraph of about ten lines in response to the following questions:
- Should a church be arranged like a lounge, or a lounge like a church?
- Why or why not?

From your comparison of the two pictures, you will have seen that the church and the lounge have different physical features and spatial arrangements. But the pictures provide no details about time, so your notes on time will probably have been drawn from your own experience or common-sense knowledge of how time is spent in lounges and churches.

Physical arrangements convey different messages

We can draw two important points from the comparison of the church and the lounge:
1 Physical arrangements convey different messages.
2 The messages of different arrangements are closely linked to the purpose of the arrangement.

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Consider the physical arrangement of the church: it is highly ordered, with fewer distractions and is less comfortable than the lounge. High, patterned and illustrated windows discourage the worshippers from looking out of them. Rows of seats facing the pulpit (or the altar) at the front of the church draw the congregation's attention to the pulpit, which is the focal point of the space. In some churches the altar is the *focal point*. The lounge on the other hand is less structured, more comfortable, with more distractions and no particular focus. Chairs arranged loosely in a circle encourage relaxed conversation; large transparent windows invite one to look out. So, the message conveyed by the two different physical arrangements, are very different.

Now we can ask more specifically: *what is the purpose of the different arrangements?* Why is a church not arranged like a lounge, and why is a lounge not arranged like a church? The question is not as straightforward as it seems. We can answer it by thinking about two different kinds of reasons – *practical* reasons and *symbolic* reasons.

Practical reasons obviously have to do with practical issues. If you arranged a church like a lounge, there would probably not be enough space to accommodate everyone. This is one practical reason for not arranging a church like a lounge. Can you think of others? If a church were arranged like a lounge, would everyone be able to see and hear the minister? And wouldn't it be difficult for people to kneel and take something like communion if there was no specific space to administer this? And why is a lounge not arranged like a church? Think about the practical reasons for not arranging a lounge with rows of benches.

This brings us to the second and perhaps more complex set of reasons – *symbolic reasons*. Arranging a church like a lounge might not just be impractical, but it might strike you also as inappropriate. Such an arrangement might not fit the purpose of the church service. Nor would arranging your lounge with rows of benches be appropriate for the purpose of the space. So, what is the purpose of a church and what is the purpose of a lounge? Another way of trying to ask the question is simply: *why* do we have church services, and *why* do we have lounges?

What was your response to this in Activity 21? I hope you discovered a link between the different spatial and temporal arrangements you noted and the different purposes of a lounge and a church. A lounge is a place for people to relax, to talk informally and to interact in a socially familiar way, so the type of furniture and its arrangements, the decorations and personal ornaments, all help to encourage a relaxed, personal space. In other words, there is a link between different spatial arrangements and different ways of behaving.

Have another look at your response to question I(d) in Activity 21 and then give some further thought to these questions.

Stop. Think.

> Would you behave differently in a church than in a lounge? Why? If you had rows of benches in your lounge, would you be able to have a relaxed conversation with the person sitting behind or in front of you? Or does the circle of chairs facing one another encourage easy interaction? And does the row of benches in the church make it difficult to have a relaxed conversation with others? Does it rather encourage you to keep quiet and so be more introspective, or focussed on the minister? And because the church service follows a particular order, would you act spontaneously by, for example, bursting out in song when the minister is busy reading?

What these comparisons show is that specific arrangements encourage or discourage certain ways of acting. If so, then the person who controls the arrangements and uses of time and space is also the person who has some control over the ways in which other people behave.

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ACTIVITY 22

Following directly from your responses in Activity 21, take about 15 minutes to think about spatial and temporal arrangements, purposes and forms of behaviour in classrooms and then, in your workbook, write a paragraph of about half a page in response to the following question:

- Should a classroom be arranged more like a church or like a lounge? Why?

Your answer to Activity 22 should show that you have started seeing the links between spatial and temporal arrangements, purposes and the ways in which these encourage (or discourage) certain ways of behaving.

Set aside about 30 minutes for the task – 15 minutes for thinking and 15 minutes for writing. Remember to reread and assess what you have written before you proceed.

What have we learnt so far?

From the tasks and discussion so far we can draw an important point:

- *The purposes of your teaching need to shape the way in which you arrange the physical space and time in which teaching will take place. These arrangements should encourage certain ways of acting and certain learning activities.*

This means that when you plan a lesson or series of lessons, you need to ask yourself:

1 What is the ***purpose*** of this lesson or series of lessons?
2 What kinds of ***learning activities*** do I want to encourage in my learners that will help to realize the purpose of the lesson (and of the subject)?
3 How can I **arrange** the space (furniture, pictures, who sits where, etc) and time (when to begin, the order of activities, the period available, etc) that will encourage such learning activities?

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4.4 Arranging classroom time and space for different purposes

Week 11 begins.

The formal purpose of the practice of teaching is to organize systematic learning. But there are different kinds of learning and it may not be effective to organize all kinds of learning in the same way. To see why not, let's begin by distinguishing between two kinds of learning – learning *that* and learning *how*.

Learning that and learning how

This distinction between two kinds of learning is related to a distinction between two kinds of knowledge – knowing *that* and knowing *how*. Knowing that has to do with knowing facts and content, whereas knowing how has to do with competence, in particular skills (including intellectual skills). It is fashionable to say that content knowledge is unimportant and that teachers should concentrate on developing learners' skills. But fashions can be dangerously misleading. Both kinds of knowledge are important. What is more, they often go hand-in-hand, each is dependent on the other.

But teachers may have to use rather different strategies and activities to enable learning *that* and learning *how,* and those different strategies and activities may need different arrangements of time and space.

Learning takes time, often a lot more time than teachers acknowledge in their planning for the term. And some kinds of learning take considerably more time than other kinds. Teachers often choose to develop learners' factual knowledge by means of telling, explaining and describing. Here the activity of learning often involves memorizing the information or facts, through drill and repetition. A prime example in most learners' lives is the drilling of multiplication tables. Other examples of learning *that* are being able to list events and dates in History, or to label the parts of a plant in Biology, or to label rivers and mountain ranges on a South African map in geography.

But knowing *that* is not sufficient for education. You could know a lot of isolated facts without being really competent to do anything. This is one reason why South Africa's new school curriculum focuses on learning outcomes such as being able to use critical and creative thinking to solve problems. These and other specified outcomes require teachers to enable learning *how*.

What's involved in learning how to do something? What is the role of teachers in enabling this kind of learning and how do time and space come into it? Consider an example: learning how to ride a bicycle. To be able to ride a bicycle does not involve learning the parts of the bicycle and the rules of the road. We don't teach someone to ride a bicycle by showing him or her pictures of different bicycles, by bringing a real bike into the classroom for learners to touch, or even by showing an exciting video of a bicycle race. Learners learn to ride a bike by actually riding it, crashing, getting back on again, and going a little further each time with a bit more confidence. This kind of learning develops through continuous training and frequent exercise. The more the learner does it, the more competent the learner becomes.

Learning *how* to do something is not confined to 'practical' tasks such as bicycle riding. We also learn how to do such 'intellectual' things as to write, to solve maths problems, to debate, to analyze arguments, to speak another language. In other words, learning how is not just a matter of learning skills that involve some physical prowess, it also plays a part in some of the most fundamental things we know and do. Knowing *how* is the development of an art, an intelligent craft. Learning how to ride a bicycle, or how to do long division, or how to analyze a poem, or how to calculate distances on a map, are all learnt by doing, by continuous practice, by repeated and varied exercise. And teaching someone how to ride a bicycle, or to do long divi-

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sion, or to analyze a poem, or to read maps, is done by showing, coaching, training, supporting and guiding the learner. In summary, it is teaching by showing and by encouraging intelligent practice.

Learning how takes time

Think back to the example of learning to ride a bicycle. Of course you needed to know *that* the brakes were fixed to the handlebar, *that* the gear lever had various settings, *that* the saddle height can be adjusted, etc. How long did it take you to learn these? Someone probably told you: 'these are the brakes', 'this is the gear lever that changes the gears to suit the speed', 'over here is the lever to adjust the saddle height', and so on. But after someone telling you this, you still didn't *know* how to ride the bicycle – that took much longer to learn. You got on, probably with someone holding the back. **At first** you might have just sat there, getting the 'feel' of the bike, then **after a while** you might have asked the person to hold the saddle and to walk, **slowly**, next to you. Again, I'm sure this took **some time** before you gained a bit of confidence to go a little faster. Then **after a number** of these trial runs with someone supporting the bike, you might have ventured on your own, wobbling along the pavement. Perhaps as you tried to turn you couldn't control the bike and fell. And then it took longer **again** to regain your confidence. But you got back on **again** and practised the turn where you at first had fallen until, **day by day**, you became more and more confident. Maybe **after a couple of months**, you were so confident that you tried some tricks, like cycling without putting your hands on the handlebars, or doing wheelies.

Have you noticed that the bold words in the description above all have to do with time? The point is that learning *how* to do something takes time- often much longer than learning *that*. And in teaching, the focus is on helping learners to become competent and critical participants. In other words, you are helping them to *do* something. That means, essentially teaching *how* they can do something. We can't say of the people who have wobbled ten metres down the road on their first bicycle ride, that they now are skilled riders. To become a skilled rider takes time. This is also true for other kinds of learning *how*.

Think back to your own learning experiences at school. If you took Maths at school, you had to learn how to do arithmetic. When you first started doing it you, like me, might have been very unsure of how to do it. Perhaps you started off with some very simple sums and applying only one Mathematical rule. After doing a few of these sums, all with different numbers, you might have been given another rule to apply – something like 'You can't divide by 0'. You might have been taken through a lot of exercises that required you to apply that rule where appropriate, as well as applying where appropriate, the first rule you learnt. Perhaps when you got a little further you found that you had forgotten how to apply the first rule and had to go back again to see in your homework book how you did it before. And so, little by little, you were able to do more complicated sums, by building up on the previous exercises you had done.

ACTIVITY 23

We have looked at two extended examples of learning how (learning how to ride a bicycle and learning how to do arithmetic). Now examine two other examples of your own.

In your workbook, make brief notes on your own experience of:

1. learning how to do something physical or practical (for example, to play soccer, to bake bread, to swim)
2. learning how to do something 'intellectual' (for example, to read, to speak a second language, to play the piano).

Your notes should indicate what you learnt how to do, how long it took you, how much practice it needed, when you practised, and whether you

You will need 35 minutes for this activity. (Note that the value questions involved in this situation will be discussed in connection with another, similar situation in Section 6.5.)

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had a teacher to support you and help you structure your time for practising. (Remember that the teacher needn't have been a schoolteacher, your teacher may have been a friend or a member of the family.)

The examples of *learning how* illustrate an important point: this kind of learning takes time, over a series of exercises, frequently repeated, and with constant training. As a teacher, one of your responsibilities is to structure learning time - and learning space - in a way that enables learning *how*. Later we'll investigate this a little further.

Learning to be

Content knowledge, concepts, and skills are not the only things to be learnt at school. People learn lots of other things at school as well. For example, they may learn how to interact with others, how to be flexible, how to address various people; they may learn that honesty is an important virtue; that it's important to accommodate different points of view; they may learn about their own self-identity. All these are a significant part of school life. This kind of self-knowledge and social awareness grows out of a learner's interaction with teachers and other learners, even though not all these are specified outcomes of school learning. When people talk about 'educating the whole child', this is the sort of thing they mean.

Have another look at your response to question 1(d) in Activity 21 and then give some further thought to these questions.

Stop. Think.

Pause for a moment and think about the time involved in learning to be the kind of person you have become. What part did your schooling, teachers, and fellow learners play in this?

How can we as teachers create space and time for *learning* to be – for the development of self-knowledge and social awareness? How can we shape time and space that enables children and adolescents to *learn to be* particular kinds of people – for instance, critical creative thinkers, caring and responsible citizens, or systematic and active learners with an orderly approach to work?

If you are interested in these and other questions about learning, you can read more about them in another module in this series: ***Learners and Learning***.
Now let's look at the suggestion that play and imagination may both contribute in important ways to what we have called *learning to be*.

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Play and learning

Botshabelo Maja, a South African educational researcher, has written about the importance of play for learning. Reporting on a recent study done in primary and secondary schools in three of the provinces in South Africa, he writes:

> *At the primary schools it was also generally clear that play was continually employed as didactic principle. Play, being one of the earliest means by which the individual learns to relate to reality, was prevalent in most of the classrooms. It is indeed through play that a child comes to terms with himself/herself and establishes a relationship with his/her own identity. Children also have an inborn desire to play and this leads them to discovering the world around them. Most of the teachers in primary school classes observed applied this inborn willingness of the child to playas an integral part of their methods of presentation. The great advantage was that passive learners then changed into active participants in the teaching and learning process. There was very little memorization, drilling or chorusing evident in these lessons. However, it does happen that some of the seemingly difficult areas are drilled and memorized; though this is done meaningfully in a manner that seemed to enhance understanding. In the most active class observed at one school, pupils moved around the classroom to check on their peers' work and helped each other to understand the lesson. Pupils would rush to the chalkboard to assist their peers with the allocated tasks, whilst some would complete them individually, and use a variety of teaching and learning aids.*

This extract is from Maja, B. 'Access to learning: the enabling conditions for learning environments' in *Going for the Gap – Kenton* (Juta, 1998), p.12.

Maja notes that while memorization and drilling do take place in successful learning environments, they are targeted at specific tasks and made meaningful. Drilling seems to be kept to a minimum, rather than being the general rule of teaching. Meaningful drilling implies repetition of what needs to be memorized – and that means that adequate time must be made for this in the lessons. Secondly, Maja describes a situation of *learning how* ... with learners helping one another to do the work, rushing to write on the board and being active. This means that the classroom must have enough space for the learners to be able to move around, unlike Emma's over-crowded and cramped classroom (described in Case study 1 on pages 43 to 45). Play is not just 'filling up time' or 'passing the time of day'. It is an important way of engaging learners as well as a way of developing their self- understanding, especially in primary schools.

When, where and how to use play to enable learning depends on:

- The teaching purpose of the playful activity. (Is it to stimulate interest? Is it to encourage learners to think creatively? Is it to make something come alive, as, for example, a role-play in a history lesson of an imagined dialogue between a white settler and a Xhosa cattle farmer over a border dispute in the Eastern Cape?)
- The kind of play appropriate to realize this purpose. (If the purpose is to encourage learners to think creatively, then a strict, prescribed game and prescribed roles would seem to work contrary to the teaching purpose. Should the learners be divided into groups or should individual play be encouraged? Should it be a competitive or non-competitive game? Should it emphasize physical or intellectual play?)
- Who the learners are. (Would young learners enjoy physically active games? Would older learners have enough social confidence to enjoy role-play?)
- The kind of space and time that is available. (What are the resources in the classroom that the learners can use for play? Can the furniture be rearranged to create space for play? How much time is available to allow play to develop?)

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Imagination and learning

We've suggested that play and imagination both play an important part in our learning to be particular kinds of people. The following extract will give you an idea of what we mean when we speak of developing learners' imaginations:

This extract is from Egan, K. Imagination in *Teaching and Learning,* (University of Chicago Press, 1992), p. 65.

> *I think imagination should properly be very pervasive in education. Such a view is difficult to take only if we think of imagination as a thing, as a particular, distinct part of the mind. If we see it rather as a particular kind of flexibility, energy, and vividness that comes from the ability to think of the possible and not just the actual and which can imbue all mental functions, then its role ... becomes easier to understand. To be imaginative, then, is not to have a particular function highly developed, but it is to have heightened capacity in all mental functions. It is not, in particular, something distinct from reason, but rather it is what gives reason flexibility, energy, and vividness. It makes all mental life more meaningful; it makes life more abundant.*

Take note of the following key concepts from this extract:

- imagination;
- flexibility;
- energy;
- vividness.

Take some time to reflect on the issues raised here.

Stop. Think.

> In what ways do you think these words are key in thinking about what it means to be a critical and imaginative thinker, an active participant in the learning process? What do you suppose are the links with the ways in which time and space can be arranged in classroom teaching? You might want to jot down some ideas in response to these questions before proceeding.

Mary Warnock has some ideas about what features a curriculum should have in order to stimulate learners' imaginations. She identifies four features, which are:

1 The curriculum should give learners a wide choice of options.
2 Learners should engage in some form of specialization which, she argues, is likely to stimulate the imagination because 'it is only by considering a thing deeply and for its own sake that one can properly begin to enjoy or understand it' (Warnock, 1977, p. 157).
3 Art activities and time to contemplate the beauty of the natural world are crucial because they encourage finer and more thoughtful perception and deeper emotional experience. (This is likely to lead to the educational development of learners' perceptions and emotions.)
4 Each learner needs solitude because the imagination works quietly and surreptitiously, and it is in the silent recollection and contemplation of what has been learnt or experienced that the imagination goes most effectively to work.

Silence, solitude, and intellectual space

So, for learners to become critically engaged, to think imaginatively and flexibly, the teacher needs to create space and time for the imagination to do its work. The last two features on Warnock's list highlight the need for 'time to contemplate' and for 'solitude'. Solitude here doesn't mean physical aloneness, but mental solitude - a kind of' silence of the mind' – that can kindle the imagination. An important part of

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teaching, for Warnock, is to allow learners time and space for their minds to relax and wander, for them to daydream, to gaze out the window, or to stare at the ceiling! She worries that the pervasive belief in the benefits of co-operative work tends to encourage conditions not especially favourable to imaginative thinking. Of course, learners working together may stimulate each other's imagination, but Warnock thinks that solitude, comfort in being alone, and enjoyment of a silence of the mind – free from incessant talk and noise – are greatly underestimated in teaching. She argues for a curriculum structure that has lots of space and time for learners' minds to range free. We could say that Warnock is arguing for intellectual space – the space for learners to explore ideas without the intrusion of the teacher and other learners.

If a purpose of teaching is to stimulate the learners' imagination, possible ways to plan to do this are:

- to organize the space in your classroom so that desks are not clustered together, but rather 'free-standing' from other desks;
- to have 'quiet time';
- for the teacher to occupy a space that is unobtrusive, perhaps in the back of the class out of the direct vision of the learners;
- to create space and time for individual learners to engage with a particular piece of work over a long period of time.

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4.5 Routines, rituals, and rules

A central idea of this module is that the definitive or formal purpose of school teaching is to enable systematic learning. Systematic learning doesn't just happen. It depends on an orderly environment where learners can develop habits of attention, imaginative exploration, and disciplined, reflective practice. Achieving an orderly classroom environment isn't easy, even in a school that runs fairly efficiently.
Perhaps you can remember what it was like when you were a learner who had to change from subject to subject, from teacher to teacher, every 30 to SO minutes or so, interrupting the learning process of the previous lesson to come to the next one. And perhaps you remember just how confusing this constant changing between classes and learning processes can be.

Consider, for example, the difficulties faced by Emma in her geography class (see Case study 1 on pages 43 to 45). Emma has learners coming into her class from different places. Maybe some were doing physical education on the outside soccer field, maybe others in the class have come from the science lab, maybe others still have come from the library – all different kinds of spaces which encourage different kinds of interaction. The learners coming from the soccer field have been engaged in an energetic team effort and will most probably be talking loudly, shoving and pushing. Learners coming from the science lab may have been doing a small-group experiment and may still be discussing some of the things that happened during the experiment. On the other hand, those coming from the library may have been quietly reading a book and are still in a somewhat reflective mood. Emma's task is to focus the attention of all these learners to the here and now of her geography classroom and lesson. How can she do this?

How teachers can achieve an orderly learning environment and focus learners' attention

One way in which Emma can achieve an orderly learning environment is to establish various routines that will help her learners recognize the specific space and time of her class. Here are some of the routines that Emma could set up over time:

- After giving learners some time to settle down, Emma could greet them formally as a group, signalling the beginning of the lesson.
- She could mark the beginning of specific activities within the period with signals such as 'for the next ten minutes it's discussion time', or 'now it's quiet work time'.
- A few minutes before the end of the lesson, Emma could give clear instructions about what needs to be done before the next time they meet.
- When the bell signals the end of the lesson, Emma could again formally greet the group, clearly indicating the end of the lesson.

By having established routines in the classroom, teachers make it possible for learners to come to recognize specific activities, and they give familiar structure to the learning process. By greeting her learners formally, Emma draws their attention to the here and now of her lesson. She also signals to learners that they need to focus on the task at hand. Clear markings of beginnings and endings help to bring some order into the learners' full and varied day with all its different demands. Routines, like regulative rules, can help to facilitate systematic learning. Everybody needs routines in the day, especially where large groups of people work together, such as in a school or classroom. It is a purpose of routines to make people feel secure enough in the consistency of the setting and its requirements to use this as a base from which to move into the unfamiliar and unknown of the learning process.

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Routines are those accepted ways of doing things that lend a sense of purpose and order to everyday life.

So far, we have listed some of the things Emma can do to signal clearly the beginnings and endings of lessons, but what about the organization of time within the lesson? What about signalling the beginning and endings of different phases within the lesson? For example, a language teacher may need to signal the end of role-playing a character from the set book, and then signal the beginning of a different learning activity such as analyzing the plot of the book. We'll look more closely at this later when we think about timing and pacing within the lesson.

Routines and rituals are sometimes described as being part of the *hidden curriculum* of schools. A hidden curriculum is not part of the planned learning programme, but nonetheless influences learners' lives by habituating them to particular ways of doing things. Lining up before entering a classroom, raising hands before answering a question in class, packing up promptly when the bell rings at the end of the lesson – all these routines and rituals are common elements of the hidden curriculum of schools.

Clock time and experienced time

While routines are important, if a teacher follows them mindlessly or without paying attention to the learners' engagement in the lesson, routines may simply result in boredom. This brings us to an important distinction, between *clock time*, and *lived* or *experienced time*. Clock time, obviously, has to do with the minutes and hours allocated to parts of school life (duration of lessons, timetables, etc). But we all know from personal experience that time flies when we are enjoying ourselves and an hour can seem like a few minutes. On the other hand, a boring hour or time spent impatiently waiting for somebody can drag and seem much longer than the clock indicates. In other words, lived or experienced time is not the same as clock time. Experienced time is flexible - a boring minute can seem like an hour, and an enjoyable hour like a few minutes. In an educational context, when learners immerse themselves in an activity, they 'forget' about time, but when they are bored or distracted, time drags and the learners fidget or get up to mischief to pass the time.

Allocated time and engaged time

The amount of clock time that a teacher sets for an activity is *allocated time*; the extent to which learners are actively involved in the activity is engaged time. As we discussed in Section Three, the timetable allocates blocks of time and specifies the length of period, what is taught when, to which class, by which teacher. Once the learners are in the classroom, it is up to the teacher to allocate time for various activities. Of course, learners may also influence allocated time by complaining if they realize that there is too little time to do what the teacher requires of them.

In a study on exemplary schools in the USA, David Berliner found that teachers varied considerably in how they allocated time within a period. Yet, he argues, time allocation is a significant factor in good teaching. Here's an extract from Berliner's study:

> *Teachers show enormous variability in their decisions about how much time to spend on each curriculum area. . .. It is not surprising to find that allocated time predicts achievement, and therefore must enter into discussions about effectiveness of teaching. The variability in allocation is what is most important. Because teachers do not usually keep track of their expenditure of time, some teachers probably spend too*

If you have a copy of the video that accompanies this module, look at the two lessons on the video. Although both lessons have the same amount of allocated time, you'll see that one lesson has more engaged time than the other.

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This extract is by Berliner, 'Effective classroom teaching' in Brookover W. (Ed) *Research on Exemplary Schools* (1985), p. 127.

> *little time per day on the subject matter they are committed to teaching. When teachers allocate too little time to a subject, the achievement scores of students will be low. The effective teacher, at a minimum, allocates sufficient time for learning a subject. ... In general, teachers who allocate greater amounts of time to some content area have students who perform better in that content area. Thus, in this discussion of the relationship between allocated time and effectiveness, we seem to be saying that more is better. If this rule is not adhered to blindly, it is, within limits, often true. Certainly we must remember that more is only better up to some point. When that point is reached, then more of the same thing is bound to be boring. Nevertheless, effective teachers seem to keep clearly in mind the fact that some curriculum areas will never be learned well if they do not allocate enough time to them.*

Two of Berliner's findings provide guidelines for your own teaching:

- Up to a paint, the more time allocated to learning, the better the learner achievement.
- Beyond that paint, too much time allocated to a learning topic or task results in boredom.

Take some time to reflect on the issues raised here.

Stop. Think.

Reread the extract from Berliner's research and see whether you can identify any other useful ideas about structuring learning time.

So little time!

How much time in a year do teachers actually have to help learners achieve the planned learning outcomes? Let's do some arithmetic. Most school years are not a full calendar year. Although a South African school year usually averages about 190 days, these days are not all spent in the classroom on teaching and learning activities. From the 190 days allocated by the Department of Education, subtract:

- five days per year for public holidays;
- five school days at the beginning of the year and five days at the end of the year for administrative tasks;
- two weeks (ten school days) for mid-year exams as well as another two weeks for end-of-year exams;
- five days during the year for athletics meetings, field trips, concerts, and other extramural activities
- five days during the year for the teacher being absent due to sick leave or school business.

That leaves about 145 days per year for classroom teaching. Now, let's say that you are a subject teacher and that you see each class for 30 minutes every day. From this subtract:

- five minutes at the beginning of the period for the class to arrive and settle down;
- five minutes for distributing materials, interruptions, extended breaks, meetings, and so on.

That leaves you with about 20 minutes per day per class. If you multiply 20 minutes per day by 14S days of teaching time for the year, then you have about 48 hours contact teaching time per year per class. That's not very much, is it?

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Here is a further consideration: you may have about 48 hours of allocated contact time per class per year, but for how much of that time are learners *actually* engaged with the work? In other words, how much of the allocated time is engaged time? For all sorts of reasons learners may be distracted during a lesson. Even though you may be teaching, some learners might not be paying attention. Berliner's study shows that learner engagement time can vary from very high to almost none; some learners are engaged, motivated and focused on the work for perhaps the full 20 minutes of the period, others perhaps engage only for about five minutes! Let's say that a learner in your classroom is engaged for about 15 minutes of the 20-minute teaching time (the other 5 minutes are spent perhaps daydreaming, chatting to a friend, staring out the window, doing some other task, etc.). Now that means that the learner engages for about 15 minutes per day for 145 days over the year, that is just over 36 hours per year to achieve all the stipulated outcomes of the curriculum for the year!

So, added to the first question the teacher asks about knowing how much time to allocate for various learning activities, we can add a second question: 'How can I encourage these specific learners to engage with the work when there is so little time?' We'll examine two ways in which teachers can do this. First, in the next section we'll investigate how teachers organize classroom time and space so as to attract and sustain learners' attention and engagement in learning activities as much as possible. Later, in the following section, we'll think about the importance of organizing systematic learning beyond the classroom and outside of school time.

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4.6 How teachers shape classroom time and space to suit different learners

Week 12 begins.

Different arrangements of time and space may be appropriate for different kinds of learners. Let's think about some of the ways in which suitable arrangements of classroom time and space may need to vary depending on the age of learners, their social class background, their level of expertise, and so on.

Young learners and older learners

The following activity will help you to prepare for our consideration of learning time and space for young and older learners.

Set aside about 60 minutes for this activity. It's important for you to form your own impressions before reading the comments and questions on Lewis's article that follow,

ACTIVITY 24

1 Turn to the article 'Time and Space in Schools' by Beverly Hardcastle Lewis in the reader for this module. For an overview, skim through the whole article quite quickly.
2 Now go back and read the section with the main heading 'Filters on Action'. Pay special attention to the sub-section 'Time values'.
3 In your workbook, make your own brief notes about concepts or points from the article that you find interesting or important. You may also want to note anything that puzzles you.

Lewis asks: I Are we tuned to children's time orientations? Which time tense predominates in our classrooms?' There are teachers, Lewis argues, who are orientated to the future. They know what goals they are steering towards; they see it as important that children sacrifice their immediate pleasures for future rewards that their successful learning might bring them. On the other hand, there are teachers who are orientated to the present and so are more concerned with satisfying their learners' immediate wants, even if these are not educational in nature. Lewis maintains that both present and future orientations have merit:

> *The selection of a single time tense is actually not necessary. All may be integrated into our school time with emphasis on shifting among the two according to the group's nature and needs.*

This is from Lewis 'Time and space in schools' in *Children in Time and Space* (Yamamoto, K. (Ed) Teachers College Press, 1979), p. 151.

Lewis' reference to the group's nature and needs links to our earlier discussion about how the purposes of the lesson shape the way in which it is appropriate for teachers to organize their time and space. The nature, needs, and purposes of young learners, say in a primary school, will be different from the nature, needs, and purposes of older learners, say in a high school. So a teacher of young learners will need to organize time and space differently from a teacher of older learners. According to Lewis, young learners will be more present-orientated. If this is true, it has a number of implications for how teachers of young learners should structure learning space and time. You should be able to think of several of these implications yourself. Below are some teaching implications drawn from Lewis's article. As you read them, think about their relationship to arrangements of time and space.

Read the story Lewis tells about Malcolm X, the famous African-American civil rights lawyer.

- To delay rewards would be a weak motivator for young learners to engage with the work; the more immediate the reward for young learners, the greater the motivation to become engaged. However, for older learners, future orientations

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may be the very spur that drives them to work hard in order to work towards their ambition.

- It is advisable to set learning tasks that are fairly short in duration for young learners; the longer a task takes to complete the more chance of the young learner becoming disengaged from the learning process. Older learners, on the other hand, can sustain interest and attention over much longer periods and so learning projects that take a substantial amount of time to complete can be beneficial.
- Younger learners do not have as long an attention span as older learners. In other words, their engaged time-span is shorter than that of older learners. Learning tasks, therefore, need to be not only short in duration for younger learners, but also varied. That means teachers plan activities during the day that range from practical activities such as experimentation, and constructing, to writing, and reporting; problem-solving; discussion, and listening; making some choices; and practising a range of skills. Of course, all learners benefit to some extent from variety, but older learners are perhaps more able to cope with a lack of variety than younger learners.
- Young learners are physically more active and restless than older learners. They need to move around, run, and play, so arrangements of space in the classroom should make it possible for them to do so. Older learners, on the other hand, are able to sit for longer periods of time. This means that classrooms need not necessarily be organized to allow learners to move around freely. Of course, classrooms that are so overcrowded that any kind of moving about is difficult, even by the teacher, are classrooms that do not encourage sustained interest. Even older learners need to stretch and move around from time to time.

Janet Moyles has written a very helpful book called *Organizing for Learning in the Primary Classroom* (Metheun, 1992). The reader for this module includes abridged versions of two chapters from the book- 'The children and their learning needs: balancing individual and whole class teaching' and 'Time for teaching and learning'. You may find it useful to set aside time to read these two chapters.

Stop. Think.

Have a look at the floor plan of two different classrooms in the article by Sally Lubeck in the reader for this module. You'll notice that although they differ in layout, both have extensive open spaces where young learners can move around freely.

We've been thinking about time and space in relation to learners of different ages. Let's now think about learners from different backgrounds. We'll look specifically at socia-economic backgrounds.

Take some time to reflect on the issues raised here.

Learners from different socio-economic backgrounds

To prepare yourself for this sub-section you will do some more reading from the reader for this module.

ACTIVITY 25

1 Skim-read the full article by Sally Lubeck in the reader for this module to get an overview of its structure, main themes and argument.
2 Then read the article a second time, paying particular attention to:
  a the different *purposes* of the two schools that she describes
  b the different *kinds* of *learning activities* and interaction that are encouraged in each school
  c the way in which *time and space in the classroom* are organized.
3 In your workbook, make some brief notes on what you have read.

You will need about 60 minutes to read through the article twice and make brief notes.

In your reading, you will have seen that Lubeck compares the organization of time and space within the classrooms of two different schools - Harmony, which is a

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mainly middle-class white pre-school, and the Irving Head Start Centre, which is mainly a working class black care centre. Harmony has an educational purpose; its learners follow a learning curriculum. Head Start Centre, by contrast, has a caring purpose; it monitors and encourages the well being of children in the community it serves.

Set aside about 30 minutes for this activity. Once again, it's important for you to think about your own responses before reading the comments that follow.

ACTIVITY 26

Compare the different time allocations in Figure A of Lubeck's article. Then use the following questions to help you think about the different purposes for which time is allocated. While it is not necessary to write anything for this task, we recommend that you make brief notes in your workbook in response to each question.

1. **Why has the Head Start Centre allocated time to breakfast and lunch? (Think of the location of the school and the likely family background of the learners.)**
2. **Why is so much time allocated to 'free play' at Harmony Preschool? (Think of the interpretation of 'free time' given by the head teacher at Harmony, where the purpose of free play is 'first to orchestrate the environment and then to maximize the use of it for *individual* children'.)**
3. **Why should there be so much emphasis on 'individually chosen' activities in the Harmony Preschool?**
4. **Why is there more 'group time' at the Head Start Centre than at the Harmony Preschool? (Think of the head teacher's response at the Head Start Centre of group time as a time when children are expected to listen attentively to the teacher, as a time of 'getting the children ready to listen to the teacher'.)**

When you read the article, you may have noticed that teachers at Harmony Preschool have far fewer interruptions to their classroom work. They have time to consult with parents after the class and have the time before class starts in the morning to prepare the classroom space for the day. In contrast, the teachers at the Head Start Centre have many different responsibilities which impact on the time they spend in the classroom – they need to consult with parents, make administrative arrangements, and so on. This means that there are more interruptions during class time.

The way in which space is arranged and the way in which learners interact with this space also differ in the two schools. Although the available physical space is more or less the same size in both schools, teachers at the two schools have arranged the space very differently. In Harmony Preschool the space is an 'open' space. This means that there are no definite boundaries and that objects and resources in that space can be moved about fairly easily. The children can move about freely, making free choices as to where they want to play and what they want to do. In other words, they have a great deal of control over where they want to go (choice of movement in space) as well as how long they want to spend on an activity (choice over their use of time). The space in the Head Start Centre, on the other hand, is more fixed. Spaces are clearly defined by the location of different resources: the music area, the puzzle area, the art area, etc. Moreover, children here have less choice about where and when they want to do things. Having only 2S minutes allocated for 'free play', children at the Head Start Centre have most of their time and space planned for them by the teacher.

Another interesting difference is the difference of 'ownership' of space in the two schools. In Harmony Preschool, the classroom space is shared between teachers and learners – there is no defined teacher area. There is a sense of communal ownership and this leads to more informal interactions. Children call their teachers by their first name, and this gives rise to more open, free interactions between teachers and learners. At the Head Start Centre, on the other hand, the classroom has a clearly defined teachers' area which for the children is perceived as being 'out of bounds'. Children don't enter easily into this space because it is seen as being 'owned' by the teachers. Lubeck argues that this division of space also sets up a division of social

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interaction – interaction between learners and teachers is much more formal, with an emphasis on authority. As we might expect in a school where there are fairly strong formal boundaries between the teachers' space and learners' space, the teachers are called by their surnames.

In summary, Lubeck argues that these different arrangements of time and space in the classroom are directly linked to the socio-economic context in which the school is located. The middle-class school (Harmony Preschool) encourages learners to be different, to exercise individual choice and develop autonomy, and to interact with adults in an informal, open way. In contrast to this, the working-class school (Head Start Centre) encourages group cohesion, deference for authority and repetitive modes of interaction that do not introduce change as a regular feature in the school day.

Stop. Think.

Take some time to reflect on the issues raised here.

Think about whether these findings might have some bearing on the different socio-economic levels in South Africa. Does the arrangement of learning space and time in a working-class township school differ from the arrangement of learning space and time in, say, a school located in an affluent, middle-class suburb? If so, are the learners located in these different schools socialized into different ways of experiencing time and space and different ways of social interaction? Of course, this is a complex and contentious question - a question that this module cannot address, but one that you as a teacher in a changing South Africa need to think about. In all likelihood, if you are a high school teacher, you will be facing a class with learners from a variety of different socio-economically located primary schools and so with a variety of different experiences of space and time and social interactions.

Novices and experts

Week 13 begins.

An assumption teachers often make is that because they have a group of learners of more or less the same age, and in the same grade, that these learners all have more or less the same ability and are at the same conceptual level. This is a risky assumption. Most classes consist of learners of mixed ability – some that learn 'fast' and some that learn 'more slowly'. The very words in inverted commas should start to signal to you that there are implications for the way in which learning time is arranged. Giving a class a task to perform might mean that some learners finish quickly, and, while waiting for the others to finish, these learners can start becoming restless and distracting for the others. To put it in language with which you are starting to become familiar: although the same allotted time for the learning task is set for all, different learners will have different lengths of engaged time. The science teacher, for example, may set an experiment that some learners can cope with easily, whereas others struggle with it. This could lead to the situation that by the time the allotted time for the task is over, the learners who are struggling have not yet finished it – they would need more engaged time beyond the allotted time to come to grips with the work. Here the teacher has to deal with different rates of engaged time.

But, there are also learners who engage at a different *level*, not merely at a different *rate*. There are those learners who might find the task very easy, finish it quickly in such a way that they don't really engage with the task.

For example, the maths teacher might set a geometry problem which a 'quick' learner might dash off and then sit back and do other things. The level of engagement of this 'quick' learner might, however, be very superficial- she might merely have noted down the correct answer. Another 'slow' learner perhaps struggles

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much more with the problem. She might try a variety of different ways of solving it, drawing on a number of different skills in trying out different approaches, and, in the very struggle, be intensely and deeply engaged in the problem. For a teacher, such a learner is seen to be using her time productively, whereas the 'quick' learner is not.

How can you begin to arrange time and space in such a way that accommodates these different rates and levels of engagement? Much of this knowledge is gained as a result of your experience as a teacher, your sensitivity to the context of your learners, and your flexibility in teaching at various levels. But you may find these suggestions helpful:

- You can set open-ended tasks that allow different learners to engage with the task in a variety of different ways and on a variety of different levels. So, for example, a History teacher might set an assignment in which he asks learners to construct a story they imagine a grandfather will tell his grandchildren about his experiences in the Border Wars of the Eastern Cape in the early 1800s. Some learners might remain on a level of recounting events and dates, whereas other learners might develop a more reflective and critical perspective on the developments of that time.
- For those learners who do not finish the task within the allotted time, you as a teacher might want to set a task for homework that will guide the learners systematically through the work. (the following section will deal in more detail with homework.) What you would be doing is to extend the learner's engaged time with the work beyond the allotted time of the classroom.
- You might consider grouping 'slow' and 'quick' learners together. By grouping those learners together who normally struggle with say geometry, the maths teacher is then able to spend more time in this particular space where they are grouped and deal with queries and questions that most of those learners all struggle with. In this way, the teacher's intervention is spatially less disruptive for the other learners in the class, in that the teacher doesn't move around from desk to desk, answering the same questions in a number of different locations.
- However, you might also want to group learners in such a way that a group will have a 'quick' learner who is able to peer-tutor the others. So, with the maths example, the learner who finishes the problem quickly may try to explain how to do it to her friend who is struggling. In this way both the learner finishing quickly as well as the learner who is taking longer are accommodated.

Learners with special educational needs

A dramatic change in policy for South African schools is the move towards 'inclusive education' and 'mainstreaming'. The debates for and against this move are extensive and we shan't be picking up on them. But what is of significance here is that you as a teacher are likely to have a class that has in it learners with physical handicaps and learners with learning disabilities. This has implications for your arrangement of teaching space and time. Traditionally, learners with physical handicaps were located in different schools. It is argued that 'setting these learners aside' in separate physical spaces has led to encouraged discrimination against these learners. The argument is that incorporating learners with special needs into the same physical space and time as 'mainstream' learners will encourage equitable treatment of all learners. Whether this is in fact so is something that we cannot address here, but what we will look at is how you as a teacher can arrange the teaching time and space in such a way as to organize systematic learning for all.

Including learners with special educational needs into mainstream schools can be done in a number of different ways. One way would be for the school management to decide to put aside a special class for learners with special needs (whether this defeats one of the key motivations for inclusive education is, of course, an issue). Alternatively, the school management might decide to incorporate the learners

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with special needs into a regular class. We'll look specifically at this second option in more detail. On a practical level, if the learner is in a wheelchair, easy access to the space needs to be arranged – for example, classrooms need to be on the ground floor, or there should be no stairs to negotiate, etc. Within the classroom an accessible area will have to be cleared. Physically handicapped learners might take longer to manoeuvre into their space. If space within the classroom is rearranged because of, say, a shift to group discussion or role-play, it might take a little longer for such learners to get into place. Physical spatial considerations also arise in the case where learners have hearing or visual handicaps. It would not be fruitful to put a learner with hearing deficiency at the back of the class, or amongst a group of noisy learners, or at the window where the interference of outside noise might be highest. Similarly, a learner with a visual handicap needs to sit in a place that doesn't increase the handicap – for example, a place that isn't obstructed by other objects like an overhead screen, or a place that isn't in an overly bright or dark spot in the classroom.

These are fairly easy temporal and spatial arrangements to make, but what about the learner who, for example, has Attention Deficit Syndrome, a learner who cannot concentrate for long periods and easily becomes restless and fidgety? There are no simple answers to these questions, but there are perhaps some guidelines that might help teachers find ways of coping with such a situation:

- Perhaps you can monitor such a learner's learning time much more closely than the learning time of other learners through setting a constant variety of different learning activities. Of course, doing this in a class that has a large number of learners is a difficult task.
- Perhaps you could place such a learner in a space that is close to the space predominantly occupied by the teacher, thus making intervention immediate and less obtrusive for the other learners.
- If such a learner tends to be fidgety, it would be an idea to place the learner in a space that is not disruptive of the other learners' activities.

Other kinds of learners

Learners can be distinguished in a variety of ways. We won't discuss them all here, but it is important that you become aware of the kinds of distinctions that are made and which may perhaps operate in your classroom.
Lewis makes a case for boys and girls experiencing time and space differently. She

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This is from Lewis 'Time and space in schools' in *Children in Time and Space* (Yamamoto, K. (Ed) Teachers College Press, 1979), p. 151.

Pause to think about some of the questions raised here.

claims that boys have less desire for clearly defined space, routines and times, and order; whereas girls are supposed to be more orderly and want routines, orders, timetables, clearly defined spaces and times. But, she cautions us, this may not necessarily be because of some biological difference - it may be because society has consciously or unconsciously assigned these characteristics to boys and girls respectively. Even so, do you think this really is the case? Do you think that Lewis, writing in 1979, is writing at a time before the generally accepted insights promoted by feminist theory and gender studies? Do you think that there might be girls in an all-girls school who do not desire clearly defined space, order and routine? Do you think this traditional distinction between girl and boy learners still has significance in the ways in which we organize systematic learning?

What about learners from different cultures – do you think that they experience time and space differently? Do you think that someone from a city in Francophone Africa, for example Senegal, would experience time differently from say an Afrikaans-speaking person from a farming community in the Free State? If so, how would you deal with this as a teacher? Would it be especially important in a case of a culturally diverse class to get communal agreement about the regulative rules of the classroom? Would the way in which to organize systematic learning be dependent on learners from diverse cultural backgrounds having a very clear understanding of what is allowed where and when in the classroom and the reasons for such rules? Think, for example, of the regulative rule of being punctual. Would it be important for learners to agree to the rule of being punctual for the class? How do you think this would encourage systematic learning to take place?

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How teachers shape classroom time and space to maximize learning time

4.7

We've looked at the tension that sometimes arises between allotted time and engaged time. In a classroom the teacher is allotted a certain amount of time for her lesson, say 40 minutes. Within this period, she plans to allot different amounts of time to different parts of the lesson, say ten minutes to introduce the topic, 20 minutes for discussion, five minutes for feedback and five minutes for consolidation. But what we have noted is that the way in which these allocations are made is dependent on the different types of learning activities she wants to promote as well as on the different types of learners she may have in her classroom. Given these different purposes and different learners: how can teachers maximize learning time or engaged time in order to promote systematic learning?

We have touched on this question already in our guidelines for engaging different learners within the same allotted time. In this section we shall focus on the question of *what* is appropriate *when*, and *who* can best make decisions about the arrangement of time and space internal to the practice.

Appropriateness and efficiency of time and space

When is it appropriate to do what? Is there a set way of doing things? Is what is appropriate in one setting or subject or lesson appropriate in another setting or subject or lesson? For example, we may sense that the way factories motivate their workers by offering a bonus of 'days off' would be inappropriate in a classroom setting that wants to encourage learners to be engaged with the work. We may also feel that the way a physical education teacher motivates his class to become engaged with the game by having a prize for the winning side would not be appropriate for the English teacher who is encouraging her learners to become engaged with a poem about love. And then even within the same subject, it would be appropriate to engage learners in one way at one time, and then in another way at another time. For example, a teacher of Sesotho may engage her learners in a vocabulary enriching exercise by getting them to play word games, pairing words that might sound similar but have different meanings and getting her learners to make funny stories by interchanging the similar sounding words. But that same Sesotho teacher with her same class might adopt a very different strategy later when she tries to engage her learners in a lesson about grammatical rules for tenses. Before we look in more detail at how teachers can create conditions that encourage engaged time by doing what is appropriate for that time, that purpose and those learners, read the following extract:

> *A company president who ran an accountancy business was given a ticket for a performance of Schubert's Unfinished Symphony, one of the great classical pieces of music. Since she was unable to go, she passed the invitation to one of her accountants, a person who advised others on how to manage their time and space efficiently in ways that would save costs. The next morning the president asked the accountant how he enjoyed the concert, and he handed her the following report:*
>
> 1 *For a considerable period, the oboe players had nothing to do. Their number should be reduced and their work spread over the whole orchestra, thus avoiding periods of inactivity.*

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2 *All twelve violins were playing identical notes. This seems unnecessary duplication, and the staff of the section should be drastically cut. If a larger volume of sound is really required, this should be obtained through the use of an amplifier.*
3 *Much effort was involved in playing sixteenth notes. This seems an excessive refinement, and it is recommended that all notes be rounded up to the nearest eight notes. If this were done, it would be possible to use paraprofessionals instead of experienced musicians.*
4 *No useful purpose is served by repeating with horns the passage that has already been handled by the strings. If all such redundant passages were eliminated, the concert could be reduced from two hours to 20 minutes.*
5 *This symphony has two movements. If Schubert didn't achieve his musical goals by the end of the first movement, then he should have stopped there. The second movement is unnecessary and should be cut.*

One can only conclude that had Schubert given attention to these matters, he would have had time to finish his symphony.

This is a humorous example of a review of someone who has tried to apply principles of efficient use of time and space to a musical work. In cutting out duplication of notes and themes, and numbers of musicians, and eliminating fine nuances, he thinks that he has 'improved' the piece of music. What he has done is to distort the music altogether – he has not understood the purpose of the music or known how to interpret it. By applying the principle of efficient use of time and space, he has in fact destroyed the music. The same kind of 'false efficiency' would arise if someone who did not understand choral music and choir singing would say that the one-hundred person choir should be reduced to only four people since there are only four voice parts: soprano, alto, tenor, and bass. Such a person's suggestion to eliminate repeated verses and cut out all repeated notes would be a 'false efficiency'- in fact, it would not be the same piece of music at all. It would be like saying that an artist painting a picture should not use a specific colour more than once, should not paint subtle shades, should cut out all detail and preferably paint on a very small canvas. We would laugh at someone who seriously suggested this approach to painting and say that this person doesn't understand the point of art.

Why is this a 'false efficiency'? Time and space, and no doubt costs could be saved by eliminating all repeated verses of a song, reducing the choir to four people only, but we would say, I think, that something essential has been 'lost'. Why would we say so? Think back to the distinction made in Section 2.2, the distinction about the arrangement of time and space external to the project and the arrangement of time and space internal to the project. You may also recall the argument in Section Two that showed that the practitioners (that is, those who understand the practice best) are the people best able to make decisions about how time and space are arranged internal to the practice. So, musicians are best able to make decisions about how best to arrange the notes, intervals between notes, repeated notes and sections in a piece of music. The substantive purpose of the choir concert is to bring out the full musical richness of a song, and that means subtle nuances between notes, volume of many voices, repetitions, and so on. The substantive purpose of a choir concert is not to make it as short and cheap as possible! To put it in language that you are familiar with by now: the constitutive rule of choir singing is different from the constitutive rule of accountancy. So, the regulative rules that enable the practice must be rules that are appropriate to the constitutive rule that is tied to the formal purpose of that practice.

Now what about education? Is a teacher somewhat like a conductor of a music concert or an artist? Is there something in the very nature of education and teaching that would be distorted if we were to apply the principles of efficiency of time and

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space without really understanding what the purpose of education is? Think about what happened in the example of the music concert. Here the regulative rule that enables good accountancy to take place has been inappropriately applied as a regulative rule for a symphony concert. Now think of the regulative rule that teachers may have in their class that says that learners shouldn't talk. Is this an appropriate regulative rule that will encourage systematic learning? Is this a rule that can be applied to all teaching situations? Or can such a regulative rule be judged appropriate or not only if it relates to the purpose of the learning activity that it is supposed to promote? So, the regulative rule that says 'no talking' might be perfectly appropriate if the purpose of the learning activity is to reflect quietly about something. However, the same regulative rule about 'no talking' would be inappropriate if the purpose of the lesson is to stimulate debate, raise different arguments, or consider different points of view. Then the regulative rule of not talking would *hinder* the purpose of the lesson.

Defining limits in the classroom

Several of the arguments and examples in Section Three showed that orderliness is crucial if schools are to fulfil their institutional function of supporting teaching and systematic learning. Section Three looks at the need for clear institutional arrangements of timetables and classroom allocations and shows that if these arrangements are not clearly in place, chaos will most probably result. In such a situation of chaos, organizing systematic learning becomes almost impossible. Think back to Elizabeth de Villiers' vivid description of the frustrations of trying to teach in such a chaotic situation. Just as a school needs regulative rules to enable teaching to take place, so a classroom needs to have regulative rules that will encourage maximum learner engaged time.

ACTIVITY 27

Refer again to the article by Lewis in the reader for this module and reread the section with the heading 'Defining limits'. Make some brief notes for yourself.

You will need about 20 minutes to complete this activity.

Drawing on Jackson's research, Lewis uses the phrase 'classroom constitution' to describe what we in this module would call the 'regulative rules of the classroom'. Jackson's research reveals that, in North American classrooms, the rules of the classroom are not usually discussed or debated by the learners with the teacher. This may be because of all sorts of reasons. It may be because teachers don't think that these rules are open for discussion; or that teachers find it more efficient to define the rules themselves; or that there is no push for change in the rules, so the rules remain the same from year to year. Also, in some instances it may be appropriate for the rules to be set by an authority. In the last case, for example, in a science laboratory where learners deal with dangerous chemicals, there may be very strict and non-negotiable rules about the time when these chemicals can be used and the space in which they need to be stored.

However, as Lewis notes, there are many instances where it might be very fruitful to involve learners in a discussion about the rules of the classroom.

Such rules shape the use of time and space and learners' behaviour by setting limits of what is acceptable and not acceptable – for example, when may learners talk, and when not; when may they move about and to where and when not; when it is time to be quiet. It may be an idea at the beginning of each teaching year develop a set of commonly agreed and understood rules that govern the use of time and space in the classroom. This way you may go some way towards establishing order and so create conditions that encourage engaged learner time.

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Pacing and timing – organizing classroom time and space in order to maximize learning time

Have you ever heard two different people tell the same joke or read the same story? The one may manage to capture the listeners' attention fully, whereas the other cannot sustain their interest. Why do you think this may be so? Of course, there are all sorts of things that influence how a person tells a joke or reads a story – some may have to do with body language, the tone of the person's voice, the person's facial expressions. But there are also some that have to do with timing - a good joke teller or story reader knows when to pause for dramatic effect, when to accelerate or slow down at the appropriate place in order to convey a certain mood. It may be an idea for you to experiment yourself with telling the same joke to different people, pausing at different places, perhaps not pausing at all, keeping the same tempo to your voice, or perhaps slowing down or speeding up in different places. In this way you can start to find out for yourself what works effectively in capturing and sustaining the interest of your listeners. Just as the successful joke teller or story reader relies on timing (pauses, slowing down, speeding up), so too the successful teacher.

A lesson has a number of different teaching and learning moments. Imagine a possible geography lesson that Emma (in Case study 1 on pages 47 to 49) could be planning. Perhaps she plans to introduce her lesson by asking learners about different areas they may have travelled through or visited in which most of the people were poor. She may plan to follow her introduction by getting learners to discuss with partners what agricultural resources they had noticed in these regions. As a further development of the lesson Emma may plan for the learners to interpret a map depicting levels of economic income and compare it with a map depicting the natural distribution of rich and poor soil types, and then to ask learners questions about possible overlaps. Finally, she might plan to bring the lesson to a close by asking learners to focus on a local area familiar to them that illustrates the link between poor soil types and low levels of economic income. But in order to develop this plan systematically, Emma needs to allocate a certain length of time to each phase – some may only need five minutes, others a more extended length of time in the lesson. So, how does Emma know how much time to allocate to each one? And how will she signal the transition from one phase to the next?

Again, think about the importance of purpose: the first phase may have the purpose of stimulating learners' interest, to connect with their own experiences. This won't need as much time as the second phase of the lesson where her purpose is for her learners to discuss and discover for themselves certain links between economic levels of income and availability of natural resources. The purpose of the third phase of her lesson is to support what learners may have discovered by drawing on maps and theories of social geography to substantiate the link between poverty and lack of natural resources and poor soil. This too will need more time in the lesson. The last phase, in which the purpose is to illustrate an actual and familiar example of this correlation, may need less time than the previous one. Therefore, by focusing on the purpose of each phase in her lesson, Emma can allocate the appropriate duration to each.

Whether Emma should signal the transition from one phase of her lesson to the next is something that she needs to decide about. She will most likely decide once she is able to gauge whether learners' attention is on the set task or not. She may not want to 'signal' the next phase if the learners are engaged with the specific purpose of that section of the lesson, but she may want to signal it if she senses that her learners are not focused on the phase. For example, after the discussion of the second phase, Emma might find that when she starts to compare the two maps, some pairs are still engaged in discussion. If so, she may say something like, 'Let's suspend the discussion for the next ten minutes, while we examine the maps to see whether there are overlaps.' In this way she signals a shift in the purpose of that part of the lesson.

But, as you know from your own experience, things don't always go according to plan. Emma may have planned her lesson in this way, but found that when she got

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to the classroom that the overhead projector for displaying the maps was not there. To make matters worse, her learners may have been late for class and many of them may not have understood her previous lesson about economic distribution and levels of income, all of which would have made it difficult for Emma to follow her lesson plan and its time allocations. Various options would be open to Emma to deal with this: one is to rush through her lesson, to cut the time for each section and so try to fit in the whole plan within the shortened period. From our own experiences as learners we know that this is not an appropriate option. Another option would be for Emma to be keenly aware of the level of attention of the learners - if they were becoming fidgety or distracted, these would be signals for Emma to change direction, change pace, or recap.

What have we learnt so far?

In Section Four we have argued that, within the context of the timetable and allocated teaching space, teachers are responsible for organizing *internal time and space*. This is one of the ways – a very important way - in which teachers exercise their *agency* as practitioners.

How a teacher does this depends on a number of different considerations. She needs to arrange clock-time within the lesson into different phases as well as arrange the physical space in ways that are suited to the intentions of the lesson. Different teaching *purposes* of different learning activities need different arrangements of time and space. But the arrangements of space and time also need to take account of the *learners.* Different learners need different arrangements of space and time.

Arranging learning space in a classroom is not only arranging the *physical* space but also creating *intellectual and affective (or emotional)* space for the learner. Similarly, arranging learning time in the classroom includes considerations about the available *allocated time* for different phases within the lesson as well as *engaged* time by the learner.

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SECTION FIVE

Making learning time and space for large classes

How teachers can manage learning time and space in and beyond the classroom

Making learning time and space for large classes

A schematic story of Section Five

How teachers can manage learning time and space in and beyond the classroom

Teaching and learning in crowded classrooms can be very difficult

Some problems:

- lack of privacy;
- delays;
- frustration;
- interruptions and social distractions.

(SECTION 5.2; PAGES 109 - 113)

There are strategies for managing time and space in crowded classrooms or for large groups

Read Case study 4 and evaluate the strategies that Emma's colleagues suggest to help her deal with a crowded classroom. Then use the ideas from the case to develop an approach that:

- is flexible;
- is learning-centred;
- stimulates learners' interest;
- holds learners' attention.

(SECTION 5.3; PAGES 114 - 127)

Teachers are also responsible for enabling learners to manage learning time beyond the classroom

To enable systematic learning, teachers need to plan learning programmes for the whole year. Some aspects of learning are developed beyond the classroom.

Homework provides opportunities to:

- practise new skills and apply new concepts to a range of examples;
- develop good habits of structuring individual learning time and space;
- explore areas of interest.

When you set guidelines for meaningful homework, think about:

- intended learning outcomes;
- allocated and engaged time;
- external and internal time and space;
- learning-centered activities;
- rules.

(SECTION 5.4; PAGES 128 - 132)

In promoting systematic learning, teachers try to open conceptual space for learners

Teaching should enable learners to develop conceptual frameworks for understanding the world they live in. Purposeful discussion is important in opening conceptual space for deep understanding. As discussants, teachers and learners participate actively, listen carefully and accept fair and defensible criticism from their fellow discussants.

(SECTION 5.5; PAGES 133 - 136)

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5.1 What can you hope to achieve by working through this section?

Week 14 begins.

Section Five builds on concepts developed throughout the module and on the idea that how teachers solve problems relating to space and time depends on what their teaching purpose is and on who the learners are.
By the end of this section, you should be able to:

- see how crowded space hinders teaching and learning;
- use your judgement in developing an appropriate approach to arranging learning time and space, especially in large, overcrowded classes;
- appreciate how such an approach depends on a notion of teaching as an intentional practice, which is both flexible and learning-centred;
- understand the scope of teachers' responsibility for helping learners to shape learning time and space beyond the classroom and outside of school time;
- use your judgement in thinking about how to enable learners to enter and work within the conceptual space of different subjects or learning areas.

On the previous page you will find a map of the main concepts and key points in Section Five.

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Large classes and crowding 5.2

On the basis of our discussion in Section Four, we can say that how you solve the problems relating to space and time in the classroom depends on what the teaching purpose is and who the learners are. In this section, you should realize that the solution to problems of time and space in the classroom needs to look *beyond the classroom*, and even beyond the boundaries of the school and its timetable.

While all teachers have to deal with problems relating to space and time, these problems are especially acute in large classes and crowded classrooms. In South Africa, and most other African countries, large classes are the norm rather than the exception. So let's begin by looking at some of the ways in which large classes and crowding affect teaching and learning.

Teaching and learning in crowded classrooms

Here's a description from a newspaper article about a classroom in Ceres, a rural town in the Western Cape:

This article appeared in the Cape Times, 1 March, 1999.

Every morning at Nduli Primary School in Ceres, small fights break out among the pupils. Not for sweets, toys or books – but for the few desks and chairs that classrooms offer to the 842 children .... Every morning after the first bell is rung, the children rush to their classrooms to grab a chair and desk. A visitor to the school would be forgiven for thinking that the pupils were eager to quench their thirst for learning, but sadly it is really a matter of 'first come, first serve', according to principal Siphiwo Tisana. Those lucky enough to get a chair must share a desk with three or four others; the rest make do with the floor.

However, the spirit ofleaming prevails. The teachers continue with the syllabus, doing their job as best as they can. Buyiswa Totile currently has the biggest class load, with 78 grade one pupils. The other two grade one classes have 75 children each.

'Sometimes I can't cope because there is a lack of concentration from pupils being packed into one class like this. I can't pay attention to all the children, but I do what I can,' Tofile said. 'It is hardest for the children sitting on the floor because they can't do the writing exercises properly. These children sometimes just sleep during the day. There's nothing we can do. I can't sleep at night with this situation the way it is.'

Nduli grade five pupil Asanda Titi said it was becoming unbearable to sit in an overcrowded classroom of 65 and continue with lessons. 'We cannot even write our tests properly because everyone looks at your work. Also, I don't like fighting with my friends for desks and chairs, but unfortunately that is the way it is, ' Titi said.

Tisana challenged top department officials to visit the school and see for themselves the extreme conditions under which they operate, 'just so that they don't think we are making it up'.

The teachers are bracing themselves for the coming winter, when rain and snow will make it impossible for the children to sit on the cold cement floors. 'We need desks and chairs more urgently than teachers, just so that the children don't have to suffer in the winter. My staff have been tremendous with the way they have been coping and continuing with teaching. Let me just say, having a class of 40 grade one children is a handful, but 78 ... these teachers deserve a medal,' Tisana said.

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The shortage of desks for the class of 78 is a shortage of physical space to accommodate everyone as well as a shortage of material goods like desks and chairs. Notice how this shortage impacts on the kind of teaching and learning that goes on, or struggles to go on, in that space. Let's pick out the problems of physical space and time first and then we'll have a look at how these affect teaching and learning:

- First, there are problems of *institutionally allocated* space and time;
- Secondly, there are problems related to *pedagogical* (or teaching and learning) space and time.

Problems related to institutionally allocated space and time

Problems of institutionally allocated space and time include:

- There are too few desks for the number of learners (space problem).
- Although it's not stated directly in the article, one supposes that even if the school had 78 desks for the grade one class, the classroom itself is not big enough for all the desks to fit into (space problem).
- Even if learners have a desk, they have to share it with three or four others (space problem).
- Those who aren't quick enough to get a desk have to sit on the floor (time and space problem).
- The cement floor is too cold to sit on in winter (seasonal time and space problem).

Pedagogical problems in crowded classrooms

Because of these institutional problems of space and time, problems in teaching and learning space and time arise. These impact on learning and on the pedagogical relationships in the classroom:

- Because learners have to fight with friends for desks, this discourages a co-operative learning climate in the classroom.
- Because learners have to run for whatever desk they are able to get for that lesson, they don't have a sense of a secure personal space for learning, of being able to say 'this is my desk'.
- Because of crowding, learners lack concentration.
- Because of crowding, teachers can't give everyone attention.
- Because they don't have a proper desk to lean on, learners sitting on the floor can't do the writing exercises properly; this means that they can't properly practise what they are learning.
- Because of the discomfort and frustration of sitting on the floor, some learners escape into sleeping and so miss learning altogether.
- Because of crowding, it is almost impossible to administer tests where learners can't copy from someone else.
- Because of these material conditions, teachers feel frustrated and helpless - 'There's nothing we can do. I can't sleep at night with this situation the way it is.' Frustrated and anxious teachers are less able to teach well.

But, as the principal said, the teachers do cope and are continuing to teach. ('These teachers deserve a medal.') So the question arises: How do they manage to teach under these difficult conditions?

You will need only about 20 minutes for this task.

ACTIVITY 28

Before we consider this question, you should read the section on 'Crowding' in the article by Lewis in the reader. This is a fairly short section, only three and a half pages. Make brief notes in your workbook as you read.

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Consequences of classroom crowding

In your reading you will have seen that in the third paragraph Lewis identifies some consequences relating to time in crowded classroom. These are:

- lack of privacy;
- delays;
- frustration;
- interruptions;
- social distractions.

Have a look at how Lewis discusses each of these time problems and relates them to learning and pedagogical relationships. Although Lewis is not writing about South Africa, her discussion of crowding is very helpful for thinking about the issues of crowding in South African schools. Many schools in South Africa have classrooms originally designed for about 25 to 30 pupils, but which now have to accommodate about 60 to 70 pupils.

Now let's look in more detail at each of Lewis' points about the consequences of crowding. As you read the comments below, think about their implications for your responsibilities as a teacher.

Lack of privacy

Lewis notes that 'time and space become public because of crowding'. She quotes Jackson who notes that most of the things learners do is done with others or at least in the presence of others. So their activities take place in shared space and shared time. In a crowded classroom, this has a significant influence on learning and teaching. First of all, what it means is that there is little privacy or sense of ownership of space, for example, a sense of 'this is *my* desk'. Space is shared with others. Let's note some implications of the lack of privacy for teaching and learning:

- It makes it difficult to administer a test when learners can easily look at others' work and answers.
- Where teachers are able to give learners individual comments or marks, it is difficult for learners to keep these comments and marks confidential, without other learners seeing how well or badly they have done.
- Where learning is much more shared and public because of crowding, 'slow' learners are quickly identified by their fellow pupils. This situation can lead to learners feeling very self-conscious about answering in case the whole class will hear if they make a mistake – so rather they don't risk making 'fools' of themselves in front of their classmates.
- Think back to the importance of developing learners' imaginations (we discussed this in Section Four of this module). You may remember that silence or 'quiet times' and restful reflection without interruptions all help to develop learners' imaginations. It is very difficult to create these conditions in crowded classrooms.

Delays as a result of crowding

Think back to Emma's class in Case study 1 and the number of interruptions to teaching and learning they experienced. Think of the learners who needed to wait because Emma didn't have the time to attend to everyone's needs and queries. As Lewis notes, in crowded classrooms individual needs and queries have to take second place to the needs and queries of the class as a whole. The large classes at the Ceres school mentioned on page 109 probably also delay the start of each lesson because teachers have to wait for everyone to either find a desk to share or a space on the floor. Just as crowding causes delays so delays influence the way in which the teaching and learning takes place in crowded classrooms.

Can you imagine what the learners who don't manage to secure a desk for the

Set up the videotape for this module and watch the first lesson. Notice the kinds of delays that occur, their effect on the lesson, and how the teacher handles them.

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lesson in the Ceres school must feel like? Perhaps they feel some resentment towards the other children in the class who did manage to get desks, perhaps some anger at school in general, perhaps a large degree of frustration in not getting what is generally regarded as something every learner ought to have? Do you imagine learners who are feeling resentful, angry, and frustrated learn easily or do you think they are more preoccupied with dealing with their emotions rather than listening diligently to the lesson? The kinds of responses crowding creates in learners are exactly the kind of responses that do not encourage learning.

But these frustrations can be overcome, to some extent, by good planning and organization on the part of the teacher. Lewis suggests that learning activities can be planned so that different learners can be using different resources at the same time, thus reducing the amount of frustration that learners may experience as a result of not getting the necessary desk or book or resource. Think back to the Ceres class. Is there any way in which teachers could plan their lessons so that half the learners do not need desks and the other half do? For example, if you were teaching in a classroom with too few desks, is there a way in which you could plan a lesson whereby half the class are set an activity of collecting things from outside the class? Or perhaps you could plan some lessons where half the class do a group presentation and so don't have to sit at desks.

Where there are delays, there is also a sense of 'wasted time'. Some learners have to wait patiently for the teacher to deal with everyone else before she deals with their specific query, and while they are waiting, usually their attention is diverted from the lesson and learners start chatting with others, or daydreaming. Alternatively, they may become more and more frustrated while having to wait for the teacher eventually to get to them. How can you as a teacher deal with this potential problem? Lewis suggests that teachers can set other or additional tasks for those who have to wait – for example, sketching, observing, imagining, thinking. These are all activities and the teacher needs to plan for them. If you know that you have a crowded class, you might want to plan a variety of learning activities and exercises for learners, and draw on these as you see that learners who are waiting are getting frustrated with the wasted time.

Frustration

Lewis notes that learners experience frustration as a result of not having access to the necessary resources or space. But there are even deeper levels of frustration when a learner realizes that her voice is not being heard – an answer is not acknowledged, or a piece of information is not heard because there too many people and too little time for the teacher to listen or attend to all. The response of the frustrated learner may be to withdraw from the lesson altogether and not pay attention (since the teacher is not paying attention to her) and so little, if any, organized learning takes place.

Interruptions

In large groups where a teacher is working with lots of learners, she might find that when she tries to work with individual learners, other learners constantly interrupt, demanding her attention. When learners do not have the teacher's immediate attention, they may start to become restless, fidgety and distracted from the work so that they are no longer engaged. Other learners are not the only source of interruption. As you may recall from your own school experience, interruptions come from many sources – for example, notices over the intercom, messages delivered to the class from the principal or other teachers, learners being called out of the class to carry desks, or attend choir rehearsal, and so on. In order to establish order in such a situation, it might be an idea for teachers not only to establish agreed regulative rules for the classroom, but also to establish a set of agreed regulative rules with other teachers. Emma might call the sports coach aside and come to an agreement that learners who are in the soccer team will not be called out of the class before the end of the school day.

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Social distractions

In a crowded class where the space is cramped and the noise level is often high, learners may find it difficult to concentrate. Cramped, noisy classrooms are also a strain on the teacher, who at the end of a full day of teaching may be utterly exhausted from having to shout above the noise and trying to attend to more queries than anyone could manage in the available time. You might start to recognize the importance of regulative rules for large classes, especially rules that govern when and how it is acceptable to talk and when, where and how it is acceptable to move around.

Compare the two lessons on the videotape. In the second lesson, notice the rules, routines and procedures that the teacher uses to minimize distractions and maximize engaged time.

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5.3 Strategies for managing time and space in large classes

Week 15 begins.

Set aside about 30 minutes for this task. Reread and assess what you have written before proceeding.

One of the most frequent difficulties of time and space confronting a beginner teacher is the problem of overcrowding and lack of time to get through the work. Think about the situation in Emma's classroom in Case study 1 on pages 43 to 45. Bearing in mind the concepts we've developed so far, put yourself in Emma's shoes and think about how you could cope with her classroom problems.

ACTIVITY 29

1. Reread Case study 1: Emma (on pages 43 to 45). You might also like to reread the notes you wrote in response to the questions immediately following Case study 1.
2. Now ask yourself, 'How would I deal with the problem of lack of space and time if I were in Emma's position?' In your workbook, write a paragraph in response to this question.

Case study 4: Strategies for Emma

Emma is in the staff room having a quick bite to eat before taking the girls' volleyball team for a practice. Mr Speelman comes in to tell her that the practice has been cancelled because three of the girls have to attend the extra choir rehearsal for next week's school choir competition. Emma doesn't know whether to feel frustrated by yet another unscheduled change in arrangements or glad about the unexpected free time. Let's eavesdrop on her conversation with Yasmine and Bulelwa:

EMMA: Nothing in my training prepared me for the constant change in plans that we teachers have to cope with. I find that I'm always having to deviate from my planned schedule. Like this afternoon. And like the lesson I've just had ... continual interruptions. I'm never going to be able to finish the work at this rate.

BULELWA *(nods vigorously)*: You are so right! And we're always having to do things other than teaching. I find myself caught up with administrative work like filling in the register and running the staff tea club, being a secretary and having to do all my own stencilling and type all my own test papers, being a sports coach for the junior girls' athletics team - what do I know about athletics, I ask you? And

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being a nursemaid to the kids in my Grade 8 class. I'm even expected to be some sort of unqualified psychologist when kids come to me with home problems or say that they can't cope with the work because of some relationship trauma. When does the Department expect me to teach and finish the full curriculum? What we need are for specific people to be appointed to do all these other things so that we the teachers can get on with the job of teaching.

YASMINE: No, Bulelwa, that's no solution to problems of time. It's not so much a matter of getting other people to do these things. What you need to do is to organize your own schedule more efficiently. I mean, I'm up to date with my work, just because I don't allow these other things to interfere with the work that needs to be done. For every lesson I have divided the time into blocks - five minutes for introducing the topic, ten minutes for explaining the new work, five minutes for questions, fifteen minutes for an exercise and five minutes for feedback or any other queries. Works every time!

EMMA: I don't know, Yasmine ... take this lesson I've just had. My classroom's way down the end of the passage, so by the time the class gets there five minutes have already gone. And then just to get them to settle down, especially when it's the last period of the day, takes more time again. It took another five minutes to get the overhead projector from Wole's room, and then there are the notices that come round, not only do these take time, but they also interrupt the momentum of the lesson and break the little concentration that there is. And Bulelwa you can add boxing referee to your list of extra duties! Mac and Alfred were at each other again today. There's something brewing there but I just don't have the time to try and sort it out, especially not with next week's geography test looming.

JOE (who has been sitting quietly to one side, now joins the discussion): I've been reading about 'open classrooms' and democratic education. Instead of the teacher trying to control the lesson by allocating fixed times to a predetermined curriculum, he allows the learners to determine their own topics of interest and allows them to work at their own pace. If learners are interested in what they are doing then there will be no discipline problems – they'll focus their energy on the work. When I get my own class I'm going to follow a learner-centred approach. let them take charge!

YASMINE *(sighing conspicuously)*: Ah, the idealism of youth! If teachers don't take control, there'll be chaos!

EMMA: I don't know ... At times I think that in order to get through the work I need to be more teacher-centred and take more control. And yet I think that Joe has a point about getting learners to be responsible for their own learning. I can't do it for them! Maybe I should try what my friend who works for SABe TV suggested: he says that people in general learn better if they are being entertained - it helps to sustain their attention and interest. Maybe I should try to make my lessons more dramatic and amusing. But how can I dramatize 'The Distribution of Arable land and levels of Economic Income' which is the section of work I need to cover? I just don't know how to cope with the lack of time and the overcrowded classroom anymore.

From the discussion we can identify four different suggested strategies of how Emma can cope with the lack of time and the large groups of students who have to squeeze into a bleak and noisy classroom with too few desks and too little space:

- **Strategy One** (as expressed by Bulelwa) is to shift the solution to the problem onto others – there is not very much teachers can do until the Department appoints more staff, allocates more resources, reduces teacher:pupil ratios.

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- **Strategy Two** (as expressed by Yasmine) offers a technical solution - a fixed plan that allocates specific time slots to specific tasks and the teacher doesn't allow any major deviations from this. Here the teacher's control is central.
- **Strategy Three** (as expressed by Joe) shifts the responsibility for the problem onto the learners. Let them decide in their own creative ways on how best to use learning time and space. Joe goes a bit overboard and also suggests that learners should decide what they learn. In other words, he suggests making learners responsible not just for making the regulative rules for their learning activities but also for deciding on the curriculum! The teacher acts merely as one resource among many on which the learners can draw. Here learners take control of their learning.
- **Strategy Four** (as expressed by Emma's friend) tries to solve the problem by making teaching and learning much more entertaining – incorporate much more storytelling, visual stimulation, role-play and games, and rely less on reading and writing assignments. This is based on the idea that learning increases when information is presented in an entertaining and dramatic setting.

Before we examine some points of concern with each of these strategies, you need to do some reading and writing.

Set aside two to three hours in a quiet place where you can concentrate on this activity without distractions. Here's a suggestion for using the time systematically: Spend about 35 minutes reading Kohl's chapter and another 35 minutes completing the related activities in your workbook; then spend about 45 minutes reading Postman's chapter and another 35 minutes completing the related written work. Use the remaining time to reread and assess what you have written.

ACTIVITY 30

1 Read Herbert Kohl's chapter from The Open Classroom that is in the reader. Here he discusses three different classrooms, each with different spatial arrangements. These different classrooms encourage different forms of behaviour from both teachers and learners. In your Workbook, for each of the three classrooms do the following:
   - **a** Draw a rough map of what each of the classrooms would look like (where the teacher's desk is, how the student desks are placed, where the door, the window, the notice board are, and so on).
   - **b** Write down the kind of learning activity that Kohl foresees in each of the classrooms.
   - **c** Now, write down what you think Kohl might see as the different purposes for the different arrangements.

2 Now read the extracts from Neil Postman's Amusing Ourselves to Death. You will find these in the reader for the module. Postman argues that both TV and schooling follow a curriculum, that is 'a specifically constructed information system whose purpose is to influence, teach, train or cultivate the mind and character of youth'. Yet the way TV organizes the timing of its information is quite different from the timing of developing knowledge in the classroom. Postman argues that entertainment and education are two different activities. Now do the following:
   - **a** Using two different coloured pens or pencil crayons, first underline in one colour all the words or sentences that express the strategies followed in putting together a TV programme or TV news (the length, the sequencing, the presentation, etc.). Then, in the other colour, underline all the words or sentences that describe what the school learning process or content ought to be.
   - **b** In your workbook, note the different lengths of time it takes to entertain and to educate, as well as the different places where entertaining and learning take place.
   - **c** In your workbook, answer the following: do you think education and entertainment have the same teaching purpose? If not, what implications does this have for learning activities?

Bearing these two readings in mind, let's go back to the four different strategies that Emma and her colleagues have been discussing.

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Analysis and evaluation of Strategy One

Week 16 begins.

Take some time to reflect on the issues being raised here.

Stop. Think.

> What do you think of the first strategy of shifting the responsibility of dealing with the problem onto someone else? Is it a fruitful strategy? Think about what would happen if you as a teacher expected someone else to do the register, to do your typing, and if you refused to take any extramural activities, and about how might this approach affect your relationship with your colleagues or with your learners. What would be your learners' reaction if you said that you couldn't hand out worksheets because there was nobody to do the typing and duplicating for you? And how would your colleagues react if you refused to carry any of the administrative responsibility of the school?

There are always shortages of resources at schools, but expecting the provincial Education Department (or School Management Committee) to employ a secretary for each teacher is just unrealistic. It seems much more likely for the foreseeable future that teachers will have to cope with existing (and even perhaps shrinking) resources. In thinking about how to work with scarce resources, the questions to ask are:

- How can I best use the time and space available, given the various tasks I need to do as a teacher?
- Is this the most fruitful use of scarce resources?
- What are the realistic alternatives?
- Can resources and work be shared?

Apart from the rather unrealistic approach of this first strategy, it has two further causes for concern. By expecting someone else to solve the problem, teachers are robbed of their own agency. What this means is that teachers give up on their responsibility and see themselves more as *helpless victims* rather than *active agents* who try to address their problems in innovative ways. This goes against the thrust in education that seeks to give teachers more say and control over their own situation. The other cause for concern with this strategy is that teaching is much more than mere dissemination of information and development of intellectual skills. Another module in this series, ***Being a Teacher***, explores the different dimensions of what it is to teach. Teaching also has to do with fostering sound interpersonal relationships, social virtues, co-operation between learners and teachers, encouraging people to take responsibility, developing enthusiasm and creativity, and engendering a feeling of trust. These are not 'tasks' that can be delegated to other people, but are an integral part of the human interaction that encourages learning.

The question of how to deal with problems of time and space is always linked to the purposes of teaching and to the teaching and learning demands of different subjects or learning areas. How do you think Bulelwa would respond if you were to ask her what she sees as the purposes of her teaching and how these purposes relate to the strategy she has proposed? Perhaps she would have difficulty answering this question because she has not really thought about it before. Perhaps her strategy of shifting decisions onto others doesn't encourage her to ask these fundamental questions about her own practices. Perhaps her description of teaching as letting teachers 'get on with the job of teaching' reflects her view of teaching as merely getting information across as determined by others in the Education Department. But is this not a narrow and ultimately unfruitful view of teaching?

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Bear this question in mind as we move on to the other strategies suggested by Emma's colleagues. We'll come back to it later.

Let's return for a moment to the conversation between Emma and her colleagues:

> **EMMA** *(after thinking about what Bulelwa has said): You know, I like my learners coming to me to discuss their problems. I feel I get to know them better and so I have insight into the kind of conditions that they have to cope with. All this impacts on their behaviour in my class and their enthusiasm for my subject. If I don't know what problems my learners have to deal with, I can't really plan my teaching to connect with their own situations. And, if I were to phone the secretary at eleven at night to type the next day's work- sheet for me, you can imagine how welcome that would be!*

Analysis and evaluation of Strategy Two

Now let's have a closer look at Strategy Two, which offers a technical solution to the problem of coping with limited classroom time and space. Yasmine's classroom, I suspect, will be similar to the first classroom described in Kohl's text. (At this point you might like to go back to your workbook and look at the map, types of behaviour, and purpose you noted down for the first classroom.) Desks in neat rows, clear rules and regulations about what is allowed and what is not allowed, discussion is very focussed and led by the teacher, there is no time to pursue side issues that may arise. The focus is on the syllabus, and learning often consists of memorization (when there is no time to discuss further). Now, it seems as though there might be some merit in this approach - Yasmine certainly thinks so, as her class usually does well in the exams. To have a clear structure in terms of which to tackle the work, to have clear rules of behaviour, to get through the syllabus, and enable the learners to do well in the final examinations are all very commendable. This helps the teacher maintain control of the purpose of the lesson, the type of behaviour she wants from her learners and to structure the classroom and the lesson plan in such a way that she is always in control.

Take some time to reflect on the issues being raised here.

Stop. Think.

> What do you think of Yasmine's strategy? Before reading the following discussion, you might like to make some brief notes on your assessment of the strategy.

We've seen that Yasmine's strategy helps to provide structure and direction to her lessons. But is it a good 'recipe' to apply at all times and in all situations? Would you teach a Grade 11 class in the same way as you would teach a Grade 8 class? Would you teach plant classification in biology in the same way as you would teach the

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discovery of diamonds in South African history or the analysis of a love sonnet in English poetry? Whereas one lesson might focus on learning *that* diamonds were discovered near Kimberley in 1871, another might focus on learning *how* to classify a rose or how to grasp the poet's emotions. As we saw in Section Four, learning through doing uses time differently. Learning by listening and learning by puzzling things out for yourself takes longer than learning by seeing how others do it. Different learning processes use time differently. The teacher has to cope with a constantly fluctuating process of learning that, like composing a song, is characterized by times of intense activity and creativity and times of feeling that there is no progress. It is therefore not fruitful to force a 'recipe' onto all lessons.

From our discussions in Sections Two and Four, you may remember that we cannot divorce the question of how we arrange the internal space and time of teaching from the questions of *who* and *what* we are teaching. So, in order to understand Yasmine's position better, we need to ask her, first of all, what she sees as the purposes of her teaching. What do you think she might say? Why does she not allow time for discussion on 'other' matters? Why are the desks in strict rows? Why does she think that good teachers are those who have full control? Full control to do or achieve what? Her reply might be, 'to get good marks in the exam'.

Think back to Emma's discussion with Bulelwa. Emma said that she thought teaching was more than merely getting information across. She said that teachers also had to deal with learners' individual problems, be sensitive to the difficulties they may be experiencing (not only with the work, but also with problems 'outside' the classroom), allow them space and time to become enthusiastic and excited about the discoveries they are making. Of course *one* of aims of teaching is to help each learner achieve certain performance standards or levels of competence as stipulated for each specific grade, but we share Emma's judgement that there is much more to teaching than this. Here's what she has to say:

> **EMMA** *(who is still sitting in the staff-room talking to her colleagues): You know, if I think of my lessons, I realize that life just doesn't follow a neat linear regular path. My class reacts differently in the last period on a Thursday than they do when I see them in the fourth period on a Monday. Also, I could not have predicted that Mac and Alfred would have a disruptive fight. It really broke the concentration of the whole class. When I planned my lesson I wanted them to work in groups and discover for themselves whether there was a link between the areas of arable land in South Africa and the levels of economic income. I was hoping that they'd get excited to find that many areas that have poor soil are also the areas where there's a problem of poverty. I had creative ideas about some of the kids telling stories about their families who I know live in the dry Richtersveld in the Northern Cape. If all the learners were as quick as Nomsa, Karin and Andile, I might've been able to do that, but I found that many of the others did not understand the map about economic distribution I discussed with them yesterday, so I had to go over that again. So a single recipe for a class of learners that learn at different rates won't work. How can one recipe help me to organize different learning processes, focussed on different tasks? I agree that a clear structure and clear rules are necessary, but I don't want to feel trapped by their being too inflexible. There must be some other way in which I can organize the fluid process of learning.*

Have you noticed how clearly Emma's teaching intentions come through here? She says that she was hoping the learners would get excited about certain discoveries, that they would be able to make these discoveries for themselves, guided by Emma's teaching, and that they could enrich their understanding by linking it to stories of their own experiences. Another of her intentions was to get them to start asking some penetrating questions about the fairness of unequal land distribution and unequal economic levels. These are the intellectual activities that do not have as

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their sole focus getting the learners to pass the exam. I suspect Emma is hoping that when her learners think back to her classes years later, they won't think of their good marks in the geography exam, but that they will remember the excitement of learning and the enrichment of their understanding. So, although she agrees that Yasmine's strategy might help solve her problem of fitting all the learning into the set number of periods in the semester and year, Emma has reservations about following this inflexible approach to teaching.

Analysis and evaluation of Strategy Three

Will Strategy Three help Emma? Have a look again at the map, behaviour and purposes you noted in your workbook relating to Kohl's second classroom. Although Joe – a student teacher – doesn't yet have a class of his own, when he does take up a teaching post, his classroom might look similar to the second one described by Kohl. Here there is no pre-arranged organization of time and space. There is no system and there are no clear set rules beforehand. If a system and rules should evolve, it would have to be initiated by the learners themselves. Learners would decide for themselves what, where, when, and how they are going to learn. In some way Joe's approach is similar to Bulelwa's: both of them see the problem of space and time as one that must be solved by 'others'. Bulelwa says that the education authorities and policy makers must solve the problem by making more resources available; Joe says that the solution to the problem must be the responsibility of the learners. In both cases, the teacher is not regarded as having a central role to play in solving the problem. Joe's solution also has two dimensions: one which makes the learners responsible for deciding on the regulative rules for learning time and space, and another which makes learners responsible for constructing their own curriculum. In assessing Joe's solution, let's focus on the first dimension only, that is, his suggestion that learners take responsibility for regulating *how* learning time and space are used.

Take some time to reflect on the issues being raised here.

Stop. Think.

Pause to make some brief notes on your assessment of Joe's solution before reading the comments that follow.

There are several *practical difficulties* in following this strategy. As Emma has already pointed out, the class is not a homogeneous group. Some learn more quickly than others, some are more responsible than others, some have different interests than others, some work better if they are told exactly what to do, others work better if they are given more freedom for exploration. Given such diversity of interests, abilities, and characters, how will the learners decide on the structure for the use of the common space of the classroom and the common time of the lesson, if different learners have different views of what they want?

Another practical difficulty in this strategy is that developing rules about the use of classroom time and space take time! There is a very real possibility that by the end of the semester there might still be no structure in place. How would the teacher give a responsible account of his time in the classroom to the parents at the parents' meeting at the end of the semester when they ask about the progress of their children?

Yet another practical difficulty with this approach is the need to work through a common syllabus or learning programme so that the standards determined by the Department of Education can be attained and so that learners can move more easily from one school to another. Think back to your investigation of external time and space in Section Three of the module. If learners decided for themselves what to learn and when, then there could not be something like a common matriculation examination, or even an internal school examination. Although there may be moves

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afoot to scrap them, for the foreseeable future exams are a reality in most schools, and for that to work, there needs to be some common set of regulative rules to ensure that learners proceed systematically through a learning programme. Here's what Emma thinks about Joe's suggestion:

EMMA: *Joe, I'm not sure that I'll be doing my learners a favour by following your approach. Apart from obvious practical difficulties, there are other reasons why this approach makes me uncomfortable. If I think back to my own schooling, I liked those teachers who supported our learning in a systematic way. It made us feel that we were making progress from week to week. When we first started working with maps in geography I hated it. It seemed so irrelevant and boring. I mean, I didn't see myself as ever having to plot contours on a map. But my teacher really enjoyed his subject and he got very excited about different ways of constructing maps to tell different stories. And by being forced to do that section of work, I started seeing that mapmaking is like a form of storytelling. I got so excited about that and about geography in general that I became a geography teacher myself! It's almost as if the rules and routines that the teacher set helped me to focus attention so sharply that I began to see geography 'from the inside'. This is what I want to achieve with my classes, so I have to take ultimate responsibility for setting rules about how and when different learning activities happen.*

JOE: *Then you are just being a top-down autocratic teacher!*

EMMA and BULELWA *(shouting out at the same time): That's not true.*

EMMA: *There's a big difference between being an autocrat who allows no input from learners about pace, space and approaches to learning, and being an authority in the subject who makes informed decisions about how best to use the little bit of time I do have for geography every day. Of course, I want to create space and time for learners to think about and enjoy what they've learnt, to be creative and raise new questions, but it is my responsibility as a teacher to have some systematic overall plan in mind that steers them in a direction. Being an authority in the subject doesn't mean that I'm an autocratic teacher. In fact I'd be more likely to be autocratic if I weren't an authority. Then I would use my power to stop learners from questioning my ignorance!*

JOE: *You haven't managed to convince me. But suppose you are right ... suppose a teacher can be an authority without being authoritarian. You are still saying that the teacher must be the central director of activities. If I had to choose between following a teacher-centred approach or a learner-centred one, I'd much rather choose the learner-centred one. And I'd much rather work with a negotiated set of classroom rules than just dictating the rules and expecting compliance.*

Various arguments and counter-arguments emerge from this discussion. Emma does not think that Joe's strategy is a fruitful one because of the practical difficulty of getting learners to decide on the rules of the practice themselves. More importantly, she feels that there are substantial reasons that make Joe's approach problematic. Looking back on her own experience as a learner, she says that she benefited from those teachers who supported her learning in a systematic way because then she had a sense of making progress. Even though her geography teacher 'forced' her to do mapwork, she doesn't regard this as an autocratic wielding of power. Instead, she says that ultimately she came to love geography. So perhaps the most important reason why Emma thinks that Joe's approach isn't fruitful is because 'you can't expect learners to make informed decisions about what they want to learn about things they are not informed about'. In other words, learning is a form of

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discovery guided by someone who knows the way through what is still unfamiliar to the learners.

To put this in language with which we are by now familiar: those practitioners who understand the practice are best able to make decisions about the control of internal space and time of that practice. This is because they are able to see which *regulative rules* are appropriate to the *constitutive rules* of the practice.

How do you think Joe would respond if we were to ask him, 'What is the purpose of your teaching?' Perhaps he would say that because his approach is learner-centred, the learners must decide for themselves what the purposes of learning should be. This means that every class, perhaps every individual learner, would have a different purpose. Can Joe really teach like this? Is it not only impractical but also inappropriate? If we were to ask Yasmine her purpose of teaching she would say that the teacher must take control as a person who knows what the learners as yet don't know, and it is her purpose to get them to know it so that they can pass the exam. In other words, where Joe is *learner-centred*, Yasmine is much more *teacher-centred*.

But where does Emma stand? She isn't comfortable with either of these positions. Although she sees that there are aspects of Yasmine's approach that make sense, as well as recognising the need for flexibility and for learner self-discovery which would be the kinds of things Joe supports, she regards teaching as more than either of these. She wants to make the practices of geography accessible (and exciting) to her learners and sometimes this means letting them discover things for themselves. At other times it means giving them a list of classifications to memorize and explain, and at yet other times it means getting them to draw things in different ways. In other words, sometimes Emma sees that it is appropriate for learners take the initiative, and at other times she sees herself as taking the central role in steering the learning process. So, perhaps we can get out of the deadlock of talk about learner-centred versus teacher-centred, and say that the practice of teaching is a matter of being *learning-centred*. In other words, the practice of teaching is focussed on encouraging learning activity. To put it differently, the purpose of teaching is to organize systematic learning. Maybe it is appropriate at times for the teacher to direct the process, at other times the learners may need to direct the process themselves.

Now what is your role as a teacher? When is it appropriate to do what? These are questions that you as a teacher need to ask yourself constantly. This module can't give you ready-made answers to these questions. Rather it tries to help you see that every time you ask yourself these questions, there are other deeper questions to ask about the purposes of your teaching and who your learners are. Once you have clarity about these, you can ask yourself, 'how can the available time and space be arranged so as to encourage *this* learning for *these* learners?'

Analysis and evaluation of Strategy Four

Let's look at whether Strategy Four can help Emma encourage learning within the constraints of her allocated space and time at Columbia High. Here Emma's friend who works at the SABC suggests that learning should be much more fun. He thinks that if information is presented in a dramatic setting, such as a video, then learning will increase. He believes that people learn by being entertained.

Pause to reflect on your own answers to these questions before proceeding.

Stop. Think.

> Refer to Activity 30 and your answers to questions on Postman's *Amusing Ourselves to Death*. Do you think that Emma's friend is right in thinking that people learn only if they are entertained? And how do you think a more entertaining approach would help Emma to cope with the problem of lack of time and space?

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Emma tries to figure out what she thinks about this strategy by telling her colleagues about it:

EMMA: *Maybe I should do what my TV friend suggests: he thinks that his own schooling was so boring that he remembers nothing useful from it at all, except that he's glad he doesn't have to go back! I'm afraid that at the moment the kids in my classes will remember nothing but a chaotic class and an exasperated geography teacher.*

YASMINE: *No, Emma, that's not true. Karin came to my class only last week and said that of all her subjects she enjoys geography the most. I don't know what you do, but your geography classes are obviously fun.*

EMMA: *Well, I don't think that I deliberately do that ... I don't even know what it would mean for me to make geography fun. Would I have to show videos with lots of action, some daredevil stunts for excitement, some jokes for laughs, some stories for entertaining? Something like 'Learning about Icebergs on the Titanic'? No, seriously, if I think of the TV shows I watch for entertainment, some of the daily soap operas and perhaps a comedy or two, I put up my feet, lie back and put my mind in neutral! I laugh, sometimes I get very weepy in the soapies, but if I really think about whether I have learned anything, I must admit that I haven't. It doesn't mean that I think soap operas are a waste of time, but then I don't watch them in order to learn anything. I watch them to laugh and relax.*

BULELWA: *I agree with Emma. I also watch the soapies, but certainly not so that I can become more competent in some intellectual skill. I can't remember very much about what happened in yesterday's episode, either. Entertainment may result in learning, but not all entertainment is necessarily a form of learning ...*

WOLE *(who has been listening in on the conversation, now comes to join them): Yes, I think Bulelwa has made a very important point, but I think we can turn it around as well. She says that not all entertainment needs to be educational, but I also think that not all learning needs to be entertaining.*

JOE: *So then you disagree with Emma's friend who believes that all learning should be entertaining.*

WOLE: *To a certain extent. It's the word 'all' that bothers me. Of course, learning can be fun and entertaining. I tell my pupils stories in history about the 1820 Settlers' attempts at farming that has them laughing out loud. So, I think that some learning can be fun, but that's a far step from saying all learning must be fun. I started out in a small rural farm school in the Transkei. Well, I can tell you there wasn't much fun there, but our teacher, Mr Mathebula, really taught me about making an effort if you want to achieve things, including an education. Yes, I know he came from a strict traditional background but, still, there is something that he taught me that's lasting. Bulelwa, you say that you can't even remember yesterday's soapie, and here I am remembering Mr Mathebula 0(30 years ago. He made us sweat I can tell you. But he also gave us a sense of pride, a sense of making progress, and a sense of our own capabilities and strengths. These for me have been significant lessons, but they had nothing to do with being entertained.*

EMMA: *So what you are saying is that entertainment and teaching have different purposes, and that sometimes they can overlap, but some-*

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> *times not. Yes, I do want my learners to get excited and to look forward to coming to my classes and hopefully even develop a love for my subject. But I also want them to become critical and rigorous thinkers who make an effort to achieve levels of understanding that are not always easy, immediately obvious or accessible. This means that I demand hard work, effort and at times perspiration from them. Hardly the stuff of entertainment!*

Let's try to capture some of the main points that emerge from this discussion.

Entertainment has as its definitive purpose to make us relax, laugh, feel good. The definitive purpose of teaching, on the other hand, is to promote and enable systematic learning or, more specifically, to help learners have access to the practices of the subject they are learning in order for them to become competent and critical participants in that practice. So the *formal (or definitive) purposes* of entertainment and teaching are distinct and do not overlap, even though teachers may sometimes use entertainment to help them accomplish their aims. To put this in more philosophical terms: there is a *contingent link* between teaching and entertainment, not a *necessary link*. This means that we can think of teaching as having a different set of constitutive rules from those of entertaining. It doesn't mean that we can't borrow some of the strategies of entertainment in our teaching – making our learners laugh, telling amusing stories, presenting information in a dramatic setting, showing films, and so on. But we don't use these as ends in themselves; we use them as strategies in order to help the learner gain access to the practices of our subject and to organize systematic learning. When these strategies do not fulfil this purpose, then they are inappropriate as teaching strategies. As Emma started to argue: teaching and learning are characterized for example by continuity, development of insight and understanding, development of skills, coherence, rules, perseverance, effort, critical engagement. Entertainment, on the other hand, is characterized by visual and auditory spectacle, laughs, and relaxation.

The main thrust of the argument of how this strategy would cope with the lack of time and space is to claim that if learners are entertained, they will pay attention and then the issue of 'wasted' time will not be such a problem anymore. In other words, entertainment is supposed to maximize engaged learning time. Proponents of this approach claim that teachers don't get through the curriculum in time because the learners take much longer to learn than the teacher has anticipated. This is often the case because the learners are bored. If they were entertained (or put differently, 'if information were presented in a dramatic setting', to use Postman's phrase), then they would learn much more quickly, thus solving the problem of the type of and lack of teaching and learning time.

What do you think? Are these convincing arguments? They focus on time but what about problems of space? (You might wish to reread Case study 1, which describes some of the difficulties Emma has to face in her geography classes.) Does the entertainment strategy help Emma cope with the overcrowded classroom, the traffic noise, the heat, the location of the classroom at the far end of the passage, the shortage of desks? Maybe there is some truth in the claim that entertainment can capture peoples' attention, but we have seen that is not the central question to ask. As a teacher you need to ask whether you are succeeding in achieving the purpose of your lesson. The purpose is not *merely* to hold learners' attention – it is to enable systematic learning and to make the practices of different learning areas accessible to the learners. So entertainment does not seem to be a suitable strategy for Emma to solve her problem of how to arrange the available time and space so as to create conditions that will encourage access to the practice of Geography and will enable systematic learning.

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Fruitful ideas

We've seen that all four strategies are problematic. Some of them give Emma some fruitful ideas, but there isn't one that can really help her. So, let's see whether we can construct a strategy that picks up on the fruitful ideas in all four suggestions, but that can help Emma create conditions to encourage learning and fulfil the purposes of her teaching for a specific group of learners. What *are* the fruitful ideas that have emerged from the discussion about the four possible strategies? This is what you need to think about first.

ACTIVITY 31

We've discussed, at some length, the problems with each of the four strategies suggested to Emma for managing teaching and learning time and space in a crowded classroom and within the constraints of the school timetable. But even problematic solutions sometimes contain fruitful ideas.

1 Reread the full discussion between Emma and her colleagues.

2 Then, in your workbook:

a List what you think are the most fruitful ideas that have emerged from the teachers' discussion of each of the proposed strategies.

b For each item on your list, give at least one reason why you think it is a fruitful idea.

Spend about 30 minutes on this task. You might like to assess what you have written before proceeding.

Now compare your ideas with the points made in the following discussion:

- The first strategy, as reflected by Bulelwa, highlights the consideration that problems of classroom space and time should not to be seen in isolation – government policies, school-management systems, the socio-economic location of the school all impact on the problems that Emma faces in her classroom. But as a teacher although you need to be aware of the larger context in which these problems occur, you also have the ability (and responsibility) to take the initiative in working with, and trying to solve, these problems in your classroom. In other words, Emma does not want to lose sight of the fact that *the practice of teaching is an intentional activity and that the teacher is an agent in organizing systematic learning* .
- The second strategy, as reflected by Yasmine, illustrates that *order and planning by the teacher are important for systematic and directed learning to take place*. Without a clear sense of its purpose, teaching can lead to chaos in the classroom. But, as Emma rightly points out, there is much more to teaching than getting learners through the exam. Learning also has to do with discovering, developing new ways of thinking, and exploring different insights – learning activities that need flexibility of both time and space arrangements. So what Emma wants to hold onto is *the sense of purpose and order, coupled with flexibility of teaching*.
- The third strategy, as articulated by Joe, focuses on the important role of the learner in the learning process. Different learners learn at different rates, with different interests and different emphases. It seriously questions the centrality of the position of the (autocratic) teacher. But we need to consider *who* teaches *what* to *whom* (a three-way interrelation of Teacher-Content-Learner.) So, while keeping in mind the important part the learner plays in participating in the learning process, as well as the important part the teacher plays in ordering the learning process, Emma also sees her purpose as encouraging learning activities in whatever way possible. In other words, she sees teaching *as being learning-centred.*
- The fourth strategy, promoted by Emma's friend who works at the SABC, also picks up on an important aspect: it is important to hold the learners' attention in the learning process and to maximize engaged time. Being entertained or seeing information presented in a dramatic setting often does hold people's attention.

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But, as Emma argues, this is not a constitutive rule of teaching. In other words, entertaining learners may help to capture their attention, but it must capture their attention in order to achieve something different to merely being entertained: *it must encourage learning and help learners become informed and critical participants in the particular practices of that learning area.*

Developing a flexible, learning-centred approach

So now let's use these fruitful ideas to investigate an approach to arranging space and time that incorporates the notion of teaching as:

- an intentional practice;
- needing flexibility of approach;
- being learning-centred;
- needing to stimulate learners' interest and to hold their attention.

Refer to Kohl's description of his third classroom and to your drawing of it in Activity 30. Kohl notes that, typically, the same classroom will be used by a variety of different classes, often classes in a variety of different learning areas as well. For example, teachers in the Economic and Management Sciences share the class with teachers in the Arts and Culture learning area. Each subject or learning area has a different purpose and so may require a different arrangement of space and time. Not only do different learning areas or subjects have different specific purposes, but each grade has a different focus, and – to complicate matters – within each class there are different learners who learn at different rates and different levels of engagement, all necessitating a different arrangement of space and time.

How can teachers cope with all this diversity in arranging teaching space and time? Kohl suggests two different ways in which you can arrange your classroom space:

1 You can arrange the desks and resources in such a way as to suit your favourite class, or perhaps most frequent class. That means the other classes must fit into that arrangement, regardless of their specific learning focus. If we take seriously the argument that space and time arrangement must suit the purposes your teaching is trying to achieve, then this doesn't seem like a fruitful way to organize your classroom.
2 Another option is to 'neutralize' your classroom space. By this Kohl means that you arrange all desks in neat rows, and force each class to sit strictly according to some 'neutral' order, like in alphabetical order of surnames. Again, if the central idea of teaching is to arrange your classroom according to your teaching purposes and your learners, then this 'neutral' arrangement is not appropriate. 'Flexibility' is a key concept that Kohl offers teachers for thinking about how they can arrange their classroom. But, as we have learnt from the discussion of Emma and her colleagues, flexibility must be linked to a clear sense of purpose. The teacher needs to have a clear understanding as to why she is arranging the classroom in that specific way. So the key question for Emma (and any other teacher) is:
   - How can I best arrange my classroom so as to make the specific purposes of my learning area accessible to these specific learners?

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What we have established thus far is to see the link between purposes of teaching, learning activities, different learners, and spatial and temporal arrangements. And we have seen that it is important to hold on to the notion of the teacher's own agency and initiative, flexibility of approach, being learning-centred, and sustaining learners' attention.

We've come a long way from thinking about Emma's problem of how to cope with her crowded classroom and too little time. We've established that there ought to be a link between the purposes of Emma's teaching, the kind of learning she wants to encourage in these specific learners, and the way she will organize the space in her classroom and the time available. We've also seen that it is important for Emma to use her own initiative (there are no set recipes), to be flexible in her approach, to be learning-centred, and to stimulate and sustain her learners' attention.

What have we learnt so far?

So, we come back to the questions that teachers need to ask, but now we can elaborate on them:

1. What are my *aims* in this lesson and *how do they relate to the subject* I am teaching or the *learning outcomes* I am trying to enable? (Is it my intention to get learners to *learn that* ... or to *learn how* ... or to play, or to socialize them into the practice, or to stimulate their imagination, or to get them to engage critically?)
2. What kinds of *learning activity and interaction* do I want to encourage in my learners that will help them to realize the purpose of the lesson (and the subject)? (Do I want them to memorize, or to exercise and practise a particular skill, or to sit quietly and alone, or to engage in collective discussion?)
3. Who are the *learners* whom I need to teach? (Do they learn at different rates and at different levels of engagement? What age are they? What kind of home contexts are they socialized into? Do they have specific requirements?)
4. How can I *arrange the physical space in the classroom* and the *time available* to encourage appropriate behaviour and the learners' engagement in the lesson? (Do I arrange the desks in rows, in groups, or as an open classroom? What other resources should I use or bring into the classroom? How best can I work with the physical structure of the classroom? And so on.)

Have another look at the video and compare the two lessons. In which of the two lessons do you think the teacher has paid more serious attention to these questions? Why do you think this? In other words, what evidence can you cite from the video to support your answer?

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5.4 Learning time and space beyond the classroom

Week 17 begins.

Set aside about 45 minutes for this task.

So far, we've assumed that teachers are responsible for arranging learning time and space only in the classroom. Emma's colleagues all propose strategies for managing time and space in the classroom. Similarly, all the planning questions listed above focus on how best to manage classroom time and space for teaching and learning. Of course, what happens in classrooms is crucial. But it is a mistake to think that the classroom walls limit the scope and responsibility for teaching and learning. Here's a task to help you see why this is a mistake.

ACTIVITY 32

Why is it a mistake to think that the classroom walls limit the scope and responsibility for teaching?

1 In your workbook, list any ideas you have in response to the above question.

2 Now turn back to Section Four and reread the analysis of time available for class teaching on pages 89 and 90.

- **a** Think about whether the class time available is sufficient for the sort of *learning that* and *learning how* that lead to deep understanding and genuine skill.
- **b** In your workbook, write a paragraph recording your thoughts.

3 Have another look at the school plans on pages 63 and 64 in Section Three and turn to your workbook and look at how you responded to Activity 18.

- **a** Reread what you said about learning spaces outside the classroom, but inside the school boundaries.
- **b** Now, in your workbook, give three examples of the kinds of learning activities that would be more appropriately done outside than inside the classroom.
- **c** For each example, say *where* the activity should be done and *why* this would be the best place for it.

4 List all the places outside of school that you think could be used as learning spaces for extending and deepening learners' understanding or developing their skill. For each item on your list, say why you think this would be a good place for learning.

5 Reread the list of your first thoughts in 1 above. Then, reconsider the question 'Why is it a mistake to think that the classroom walls limit the scope and responsibility for teaching?' and make a second list, taking account of your responses to 2 to 4.

The various activities in Activity 32 should have helped you to see why it is a mistake to assume that teachers' responsibilities for learning time and space are limited to what happens within the classroom. For a conceptually richer picture, let's now add a few more considerations, all of them drawn from the analytical work done earlier in this module. As you've seen in the discussion of large classes, teachers' responsibility for arranging learning time and space depends on a notion of teaching as an intentional activity which needs:

1 to be *flexible*
2 to be *learning-centred*
3 to *stimulate learners' interest and hold their attention.*

If we think about them, all three of these criteria point beyond the class- room walls as well as within them. A flexible approach allows for a variety of activities within the

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classroom but also allows for those kinds of learning activity that are better done outside. It's not just that taking learners out of the classroom may help to stimulate their interest. There may be other reasons – either practical or purposive – for doing so. Practically, working outside is a way of making space for group work or quiet contemplation when classrooms are too crowded. Also, some activities can't properly fulfil their purpose if they are conducted in the classroom. Think back to the distinction we made between *learning that* and *learning how*. Some kinds of learning how – like learning how to ride a bicycle or to identify rocks in their natural setting – can't be done in a classroom. Other kinds of learning can be done in a classroom but may be better done elsewhere. Think, for example, of a creative writing lesson on outdoor smells and sounds, a biology lesson on classifying plants growing in the school grounds, a maths lesson on measuring the perimeter of the soccer field.

There's still one very important conceptual piece needed to complete our picture. If you go back to the analyses in Section Two, you'll find the following key claim about teaching as a practice: *The definitive purpose of teaching as a practice is to promote and enable systematic learning.*

This is the piece we need to complete our picture of the scope of teachers' responsibility for arranging time and space for learning. There are two very important things to notice about the key claim. First is the word 'systematic'. When we call a process, procedure or approach 'systematic' we mean that it is not random, casual or sporadic, but forms a complex and coherent whole. So systematic learning doesn't take place in isolated bits and pieces but proceeds according to a coherent programme and forms a complex whole in which different things (for example, ideas, concepts, skills, attitudes, and values) are connected. The second important thing to notice about the key claim is the idea of a *definitive purpose*. To say that promoting and enabling systematic learning is the *definitive purpose* of the practice of teaching is to lay a special kind of responsibility on members of the practice. Failure to fulfil the responsibility would be to undermine or corrupt the practice.

> ***Teachers' responsibility doesn't stop with planning for individual lessons.***

What does all this mean for teachers?

Well, for one thing, it means that teachers' responsibility doesn't stop with planning for individual lessons. In order to enable systematic learning, teachers have to plan learning programmes for the whole year and to think about *where, when*, and *how* the different parts of the programme should be followed. As teachers we need to think about which aspects of the programme are best suited to group or individual work in the classroom and about which would be better accomplished outside the classroom, for example in the school grounds, or the hall, or the library. We also need to think about which aspects of the programme might be best accomplished outside the school - at home, in the streets, at a shopping centre, in a museum, a public library, or a local historical site. Finally, we need to think about how to encourage and enable learners to use different out-of-school times and spaces responsibly and appropriately. If teachers are responsible for providing enabling conditions for systematic learning and if these conditions include suitable arrangements of time and space, then it follows that they are *also* responsible for helping learners to structure their own learning time and space.

This last consideration is crucial. You may remember that the analysis in Section Two showed that teaching is a *co-operative* activity and that teaching isn't possible unless teachers and learners are in active co-operation. In other words, the activity of teaching is incomplete without the action of trying to learn. Although the teacher is the main agent, teaching is a *dual agency activity* in which both teacher and learner have important parts to play. For teaching to be successful, the learners need to engage actively in trying to learn. Part of the responsibility of anyone who is teaching is to act in a way that encourages learners to learn.

For many teachers, this is hard enough to accomplish in the classroom. We've already seen, through Emma's case and a range of other examples and readings, how allocated time and space at school often do not provide optimum conditions for learning. Through careful analyses of examples and arguments, we've also seen

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that the time for learning varies according to who the learners are and what they are trying to learn. And – from our own experience as learners – we know that learning how to read, or to solve problems in geometry or to write coherent long essays is likely to take a long time, perhaps years, and lots of attentive practice.

The role of homework

This is why homework is so important. A well-conceived homework activity gives learners an opportunity to practise new skills and to apply concepts in a range of different examples. In addition, regular homework *may* help learners to get into the habit of structuring their own learning time and space. Homework can also open a space for learners to deepen their understanding, to explore issues that couldn't be explored during class and to work imaginatively on a project of special interest to them. Of course, homework can just be a chore, ignored until the last minute and then dashed off carelessly and only in enough detail to be able to say 'I did do my homework!' So, as teachers, what is our role in setting the conditions for meaningful homework?

Let's pause for a moment to reread a sentence from the description of Emma's class (Case study 1):

> *As she tries to quieten the class and give them their homework tasks, the bell rings for the end of the day and with an instantaneous goodbye, the class starts to move loudly to the door.*

Have another look at the two lessons on the videotape for this module and make some notes on how the teacher deals with homework. Do you agree that the way the teacher sets the homework for the second lesson is much more likely to result in learners' approaching their homework systematically? Why or why not?

We know that Emma enjoys her subject, geography, and that she's eager to help her students to develop the same kind of enjoyment that comes from a deep understanding of the subject and its special ways of doing and thinking about things. In other words, Emma is eager to give her students access to the *conceptual space* that constitutes the practice of geography. Yet the way in which she tries to give them their homework task is bound to result in disappointing work. In their rush to leave for the next class, many of the learners may not have heard her instructions, others may have heard but not really paid attention and so may forget what was required of them. Homework under such conditions is a hit-and-miss affair, especially when it follows a disrupted lesson in which there has been very little engaged learning time.

Several of the concepts and principles that we have used in thinking about how to organize classroom space and time are also important when we think about how best to plan meaningful homework.

Spend about 30 minutes on this task. You might like to assess what you have written before proceeding.

ACTIVITY 33

1 In your workbook, write some guidelines on how to set meaningful home- work. Use the following concepts to help you draw up these guidelines:
   - intended learning outcomes;
   - allocated and engaged time;
   - external time and space;
   - internal time and space;
   - learning-centred activities;
   - rules.

   In drawing up these homework guidelines, think about what teachers need to consider when they plan homework and about what they need to tell their learners so as to enable the learners to use their homework time properly.
2 Now give an example of some homework you would set. Your example should include details on:

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- the subject or learning area (for example, mathematics, geography);
- the level (for example, Grade 1, Grade 4, Grade 11);
- the aims or intended learning outcomes of the homework;
- how the homework relates to this section of your learning programme (i.e. how it relates to classwork);
- what you will tell the learners about how best to arrange the space and time for their homework. (Think about who the learners are - how old are they, what are their special abilities or disabilities, what are their home circumstances like? Think about how to help learners to help themselves if they live in circumstances where it's difficult to find a quiet time and place for homework.)

In planning a homework activity, it's important for you to think about the point or purpose of the homework and then to make sure that the activity you plan fits the purpose. Sometimes you will have some particular learning objectives in mind, such as using the key to a map in order to read the map accurately, translating word problems into mathematical expressions, applying a familiar concept in unfamiliar ways, identifying and understanding the meaning of metaphors in a poem. Sometimes you may want learners to use their homework time to finish off work that couldn't be completed in class. And at other times, you may want learners to use home- work time in a more open-ended way to explore an area of interest to them.

Once you are clear about the purpose of the homework, you can begin thinking about how long learners should spend on it and about where they might do it. You can then suggest how much time they should allocate, bearing in mind that other teachers may also have set homework and that the total amount of time allocated for homework should be feasible and appropriate to the learners' age and capacities. You might want to explain the difference between allocated and engaged time to the learners, or to use an analogy or example that will help them understand these concepts even if you don't use the words 'allocated' and 'engaged' time. This may help them to see that homework requires their full attention and that engagement may be easier to accomplish if they can find or make a special place for doing their homework. If the homework is intended to encourage learners to explore an area of interest, then the school library or a public library – or even a museum – may be the best place to do it. Libraries are also good quiet places to work for learners whose home circumstances are overcrowded or disruptive. You might want to remind your learners that their exercise books or files are also learning spaces that need to be arranged in a way that fits their purpose. Helping learners to develop working rhythms appropriate to the internal time of different activities may be quite difficult to accomplish. But in time, and through the right kind of homework and classroom activities, learners may come to experience the special sense of achievement that comes with 'getting the timing right'.

Other ways of engaging learners outside class- room time and space

Homework is only one of several ways of engaging learners outside of classroom time and space. Teachers also take their students on field trips and on visits to museums, historical sites, factories and libraries. Visits of this kind can be entertaining or boring (for teachers and learners alike), educationally enriching or a waste of everyone's time. They can be orderly but dull, chaotic and embarrassing for the teacher but an opportunity for student mischief, entertaining but educationally empty.

If they are to serve the definitive purpose of school teaching – that is, to promote and enable systematic learning – excursions need to be properly planned. Proper planning for an excursion doesn't mean heavy-handed control of every movement

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nor does it require tedious worksheets that dampen the learners' enthusiasm and curb their curiosity and imagination. The places that are visited, just like schools and factories, have their own definitive arrangements of time and space. Part of the point of an excursion is to develop learners' sensitivity to different places and their typical practices, artefacts and temporal dimensions. In visiting a museum or an historical site we can, in the right frame of mind and if we learn how to look, cross the boundary – figuratively speaking – between present and past. Kindling the learners' historical imagination is surely one of the responsibilities of the history teacher and what better way to do this than through imaginative excursions into the past through visits to museums and historical sites. Excursions can also help to attune learners to the present and to the ways in which what they learn at school relates to the everyday world. Think, for example, of how maps can guide us through an unknown place and of how this might be better demonstrated through an excursion or an orienteering activity than through a lesson in the geography room. Let's end this discussion with some exploratory work on learning spaces beyond the school.

Since this is a group activity, one of the group's responsibilities will be to plan and allocate time for the activity.

ACTIVITY 34

This activity requires you to do some of your own 'research', with a group of two or three of your colleagues or fellow students. This is an opportunity for you to share your ideas and to engage in the kind of critical discussion that often results in fresh insights.

1 Start by rereading the discussion of institutional space and time in Section Three of this module. Notice that school time and space, prison time and space, and factory time and space are constructed and used in different ways and for different purposes.

2 With the members of your group, visit a place that you think could be incorporated into a systematic programme of learning. The place could be a church, a museum, a library, a farm, a research laboratory, the local shopping mall, an art gallery, an archaeological site, a railway or bus station, *or any other place where people have structured the time and space for particular purposes.* (Notice that this excludes natural sites such as mountains, valleys, forests, and rivers, although, of course, teachers may use all these sites as learning resources.)

3 On your visit and *together with members of your group*, make notes on:

- how time and space are structured at the site (use the relevant concepts from Section Three of the module to help you) and how this fits the main purpose of the site;
- the kinds of learning that could be enhanced through a site visit;
- the kinds of learning activities that would be appropriate to' the site;
- the regulative rules that would be needed to ensure that learners use the site sensitively and with a proper respect for its special arrangements of time and space.

4 *Individually*, in your workbook, note any points of major disagreement within your group. Also make some brief notes on any ways in which your own thinking changed as a result of group discussion about the site, activities and rules.

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Opening conceptual space: active participation and shared responsibility

5.5

Week 18 begins.

As we come to the end of the module, it may be productive to go back to the beginning to see whether we can now extend some of our earlier ideas and deepen our understanding of teaching and its relationship to time and space. In Section Two we argued that school teaching is a practice that is centrally concerned with the kind of learning that leads to the development of conceptual frameworks in terms of which to understand the world in which we live our lives. For it to have a chance of being successful, such learning needs to be systematic and, as you will recall from our analysis in Section Two, needs to be organized by those who already understand those conceptual frameworks. But although the teacher is the main agent, teaching involves *an active, co-operative relationship* between the teacher and the learner(s). Both the teacher and the learner(s) have important parts to play. *Learners are active participants in a shared enterprise*, not merely the passive victims of teaching.

Conceptual space

The idea of conceptual space needs to be elaborated. This idea comes into play in several of the other modules and is so central to the practice of teaching that we can't really count ourselves as members of the practice unless we understand the idea of conceptual space. Part of what it means to be a schoolteacher is to take responsibility for enabling learners to enter and work within new conceptual spaces. Teachers provide access to new conceptual spaces by enabling learners:

- to think mathematically;
- to use scientific concepts like momentum and energy;
- to see how language works in a poem or a novel,
- to use primary sources such as letters and diaries from the past to understand historical events;
- and so on.

It's not possible for us to investigate the idea of conceptual space fully here. But it's an idea that should be at the forefront of your thinking each time you plan a programme for systematic learning.

Co-operative relationships

In thinking about how best to organize time and space for developing conceptual understanding, we need to be a little clearer about the nature of the co-operative relationship between teacher and learner. We also need to be clearer about how learners relate to one another and about their shared responsibility in the enterprise of teaching and learning.

An analogy may help us to form a clear idea about co-operative relationships and their role in helping learners to develop and work within a range of conceptual frameworks for understanding the world. Let's begin, provisionally, with the idea that, in some respects at least, teaching is like a conversation. Conversation is an illuminating analogy because it helps us to see some of the special aspects of teaching more clearly, but like most analogies it may also be misleading and this is why we take it as 'provisional'.

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From the earliest years of our lives we have conversations and, unless we are in the equivalent of solitary confinement, or are the victims of some kind of serious personal deficiency or illness, we spend many hours every day having conversations with those around us. We converse with family members, with friends and neighbours, and with people we may happen to meet at school or work, in the streets or in the taxi. Conversations are very familiar to us in our everyday lives as normal human beings, and we all know a lot about them, even if we haven't thought about them very clearly. One thing we know is that, like teaching, conversations involve people communicating with each other. Conversations usually take place in a shared space. The participants are in the same place at the same time. But it's also possible to have long-distance conversations by letter or over the telephone.

Conversations can take place at any time of the day or night, and they can take place anywhere as long as those taking part have some way of communicating with each other. Some conversations are very brief, perhaps just a few minutes in the taxi on the way to work; other conversations, perhaps with our mothers or lovers, extend over years. Some conversations involve only two people, other conversations involve many more.

You have probably already noticed some of the ways in which teaching and conversations are similar. Perhaps you have also noticed some of the ways in which they are different. Are the similarities striking enough for us to say that teaching is a kind of conversation? And, if it is, what might this mean for teachers' arrangements of learning time and space? Let's now eavesdrop on a staffroom conversation where the teachers at Columbia High are talking about this. You will find 'A staffroom conversation', in the reader for this module.

You will need about 20 minutes for the reading and perhaps another 10 minutes to make some notes.

ACTIVITY 35

Read 'A staffroom conversation' in the reader for this module. Once you have an overview, reread the conversation and make brief notes in your workbook about the different views of teaching expressed by the different participants.

In the conversation that you have just read, the teachers were exploring whether teaching could be seen as a kind of conversation. In their exploration, they said a number of interesting things about teaching and learning and knowledge. Although they didn't talk explicitly about time and space, what they said has some important implications for how teachers shape time and space for teaching and learning. The conversation was rudely cut off in the middle of Emma's speech, in which she was trying to say what she had 'suddenly understood'. We can summarize her main points:

1 Teaching is a 'practical business' and, although some 'theories of teaching' are of very little help, the 'pictures we have in our heads' make a difference to how we teach. 'Our concept of teaching shapes our practices as teachers ... '
2 There are advantages to thinking of teaching as a conversation.
3 But it must be a *particular kind* of conversation, one which does not 'wander all over the place' ,in which people listen carefully to what others are saying, and is connected in some way with what we think learning and knowledge are.

She then catches on to Yasmine's word 'discuss' and she is about to go on, but is rudely cut off in the middle. Your help is now needed.

Set aside 20 to 30 minutes for this task. Remember that it's sound learning practice to reread and assess what you have written before proceeding.

ACTIVITY 36

What Emma had 'suddenly understood' was that it might be better to think of teaching as a kind of *discussion*. Just when she was about to say why, the principal, Mr Speelman, interrupted the conversation.
Try to keep in mind the various things that were said during the whole conversation, then write the following in your workbook and complete Emma's speech for her - in about one page:

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EMMA: *A 'discussion' is a special kind of conversation. I've been thinking that it would be better if we thought of teaching as a kind of discussion, especially if an important part of our work is to help learners to develop the critical outcomes that Joe and Andile have mentioned. Thinking of teaching as a kind of discussion would have the following advantages ...*

People taking part in a discussion are called 'discussants'. Discussants have responsibilities different from participants in other kinds of conversations. Discussants need to respect the views of fellow discussants and listen carefully to what they say – which certainly does not mean that they agree with everything they hear. Discussants take part in a discussion by trying to make contributions to the discussion; by trying to understand clearly what other discussants are saying and then taking the discussion forward.

A discussion is a kind of journey of exploration, and when discussants contribute to the discussion they might be taking a risk: they are bringing out into the open what they think, and in doing that they might find that others disagree. They might find that they have to defend their views against criticism, or they might even have to change their minds. Someone who says nothing in a discussion, someone who remains passive is not taking part in the discussion; discussants need to be active participants. Many of us remain silent in a discussion because we fear that if we open our mouths we might show how silly or ignorant we are. But if we remain silent, mere spectators overhearing a discussion, we lose the rich opportunities there are for learning from discussion.

What have we learnt so far?

Let's use these ideas about teaching, learning and discussion to draw together the main threads of this module and to direct our attention to other important questions which we haven't considered here but which you may want to think about as you pursue your teaching career. Three of the main threads are evident in our subtitle, Teaching, Time and Space.

In Section Two we developed a conception of school teaching as a practice whose definitive purpose is to promote and enable systematic learning. We also began an extended investigation of how the practice of school teaching both shapes, and is shaped by, time and space. During the course of their teaching, teachers shape the time and space that is internal to teaching. But how they shape the internal time and space is limited by the external allocation of time and space, through the timetable, school buildings and so on. In Section Three we investigated the external time and space of teaching by exploring some of the ways in which schools construct time and space. In Sections Four and Five we have focused primarily on how teachers exercise their agency in organizing time and space for systematic learning.

How does the idea that teaching is a kind of discussion help to advance our understanding of teaching as a co-operative practice that is constituted by its purpose of promoting and enabling systematic learning? Below are some key points we can draw from the analogy. You may want to add some more of your own.

1 In a co-operative teaching relationship, teachers and learners have a shared responsibility to participate in the lesson by contributing to discussion, listening with care and trying to understand what others are saying.
2 While teachers and learners all have a responsibility to contribute and are all worthy of equal respect, some participants (the teachers) know more

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and can do more than others and so have a special responsibility to guide the discussion and set appropriate boundaries.

3 Active participation can be a risky business. Teachers are responsible for ensuring a classroom ethos where learners are willing to speak out but are also willing to accept fair and defensible criticism.

4 Discussions sometimes carryon over a long time and in different places. Discussants may need to remind one another of where they left off. The same applies to teaching and learning through discussion.

In this module we have engaged in an extended discussion of the practice of school teaching and its relationship to time and space. The discussion is an open-ended one. Although we have reached a number of clear conclusions, there is still room for further investigation. Indeed if you go back to the distinction between practices and institutions in Section Two, you'll see that practices can change, that they remain open to revision and improvement. Often change comes about through ongoing critical discussion among practitioners. Such critical discussion is also what keeps a practice alive and healthy.

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Tutor-marked assignment 2

We end the module with an assignment that focuses on teaching as discussion but which asks you to draw on a wide range of concepts. While it is not necessary for you to do any additional reading for the assignment, you may find that some of the pieces in the reader for this module provide a helpful perspective.
If you cite any readings, remember to reference them fully.

In essay form, write 2 000 to 2 500 words in response to the following questions:

- If you decided to approach teaching as a discussion, how would this affect your arrangements of time and space?
- What space and time factors might constrain you in taking this approach?

In answering these questions you should try to use the following concepts:

- internal time and space;
- external time and space;
- regulative and constitutive rules;
- allocated and engaged time;
- routines and rituals;
- physical and conceptual space;
- systematic learning.

You should also provide a detailed, extended example to illustrate the crucial points in your answer. Remember that a discussion does not have to be restricted to the classroom.

Spend week 19 on this assignment.

Spend the final week (week 20) rereading the material toreview the entire module.

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Further reading

Time and space in teaching

Searle, J. 1999. *Mind, Language and Society*. London: Weidenfeld & Nicolson.

This intellectually demanding book is not about teaching, but many of Searle's concepts and arguments will deepen your understanding of teaching and learning. Searle's distinction between regulative and constitutive rules has been crucial in this module to our thinking about the relationship between teaching, time and space.

School time and space

Criticos, C. and Thurlow, M. (Eds) 1987. *Design of Learning Spaces*. Durban: University of Natal Media Resource Centre.

A collection of papers by South African architects, town and regional planners, and educators. Well illustrated with classroom layout plans and school site plans, this is excellent collection for getting you to think about the relationship between spatial arrangements and learning possibilities.

Christie, P. 1998. 'Schools as (Dis)organizations: the "breakdown of the culture of learning and teaching" in South African schools' in *Cambridge Journal of Education*, vol. 28 no.3, pp. 283-300.

A research article which includes an account of how the disorderly use of time and space in some South African schools has resulted in 'a breakdown of the culture of learning and teaching'. You will find an extract from this article in the reader for this module.

De Villiers, E. 1990. *Walking the Tightrope: Recollections of a Schoolteacher in Soweto.* Johannesburg: Jonathan Ball.

A personal account of a young white teacher's experiences of working in a dysfunctional South African township school.

Hargreaves, A. 1994. *Changing Teachers, Changing Times*. New York: Teachers College Press.

Fairly difficult reading, but Hargreaves is an elegant writer with a rich understanding of how changes towards the end of the twentieth century have affected teachers' time and work. The book includes a number of interesting case studies of Canadian teachers and how they respond to changing demands on their time.

Meighan, R. 1986. *A Sociology of Educating*. Third edition. London: Holt, Rhinehart and Winston.

This textbook has two easy-to-read chapters relating to school space and time: 'Space talks: The hidden curriculum of educational buildings' and 'Timetables'. Several of the tasks in this module were inspired by the activities in these two chapters.

Classroom time and space

Egan, K. 1992. *Imagination in Teaching and Learning.* Chicago: University of Chicago Press.

A thought-provoking book on the importance of imagination in teaching and learning.

Lubeck, S. 1984. 'Kinship and classrooms: an ethnographic perspective on education as cultural transmission' in *Sociology of Education*, vol. 57.

Maja, B. 1998. 'Access to learning: the enabling conditions for learning environments' in *Going for the Gap* - Kenton. Cape Town: Juta.

An investigation of learning conditions in some South African schools.

Moyles, J. 1992. *Organizing for Learning in the Primary Classroom*. London: Methuen.

A practical, easy-to-read book with several chapters on learning space and time for young learners. Although the book is written for teachers in England, many of the ideas can be adapted to suit the working conditions of teachers in Africa.

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Powell, M. and Solity, M. 1990. *Teachers in Control: Cracking the Code.* London: Routledge.

Warnock, M. 1977. *Schools of Thought.* London: Faber.

A philosophical approach to issues in teaching and learning. Like Egan, Warnock argues that schools should nurture imagination.

Yamamoto, K. (Ed) 1979. *Children in Time and Space*. New York: Teachers College Press.

A collection of papers, two of which are included in the reader for this module: Nathalie Gehrke, 'Rituals of the hidden curriculum' and Beverley Hardcastle Lewis, 'Time and space in schools'. The collection includes an interesting discussion between the authors and a group of parents, teachers, student teachers, teacher educators, and educational psychologists.

Making learning time and space for large classes

Kohl, H. 1969. *The Open Classroom*. London: Methuen.

An easy-to-read account of Kohl's own teaching experiences, and of how he works with time and space in an 'open classroom'.

Postman, N. 1985. *Amusing Ourselves to Death*. London: Penguin Books.

Taylor, N. and Vinjevold, P. 1999. *Getting Learning Right: Report of the President's Education Initiative Research Project*. Johannesburg: Joint Education Trust.

A synthesis and discussion of 35 research studies, conducted in 1998, on different aspects of teaching and learning in South African schools. Several of the studies looked at uses of classroom time and space. For example, see the study on 'The enabling conditions for successful learning environments' by Botshabelo Maja and his colleagues (pp. 291-296).

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