

# Using Media in Teaching

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**Saide**   
South African Institute  
for Distance Education



# Using Media in Teaching

## Learning Guide

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# SECTION TWO

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# What will we do in Section Two?

## 2.1

### Setting the scene

OBE has brought about large changes in South African education. We now aim to teach so that learners can *use* the knowledge they learn. Our focus is on *outcomes* – what learners can do after their learning – rather than on the content we, as teachers, put into the learning process. There is an increased emphasis on skills.

What implications does this hold for the way in which we teach? You may well have participated in workshops emphasising *group work* and *learner-centredness*. You may have practised *activity-based* teaching, or methods where learners are given *real-life* problems to solve in order to learn new information. You may have been told to make more use of your environment in order to teach.

Obviously, if we want learners to use their knowledge, our teaching methodology must build in more time in which learners can practise what they learn. This kind of outcomes-based learning is consistent with a variety of methodologies, including experiential learning, role-plays, simulations, and problem-based learning. They all create active learning environments and focus on developing skills and understanding.

In Section Two, through a story of one teacher's attempt to teach in a learner-centred, activity-based manner, we will deepen your understanding of how media resources can be used to enrich outcomes-based education. We will teach *through example* rather than by telling. The section ends by demonstrating how you can develop higher-order learning by designing your outcomes-based lessons around critical *concepts* in your learning area.



Keep a record of the time you spend working. We will provide a guide in regular margin notes. This is the start of Week 1 of 20 six-hour weeks.

### Desired learning outcomes

By the end of Section Two, you should be able to:

- Explain what a resource-based OBE methodology is, and understand the potential weaknesses and strengths of this kind of teaching.
- Explain how an ordinary resource can be turned into an *educational* resource.
- Plan and teach a resource-based lesson in your learning area that uses a range of *media-based* resources in achieving your desired educational outcomes.
- Demonstrate an ability to design resource-based learning programmes that develop higher-order conceptual understanding in learners.



Checking your learning: How should you use these outcomes? You may find that they don't mean much *before* you study the section. That's why it is so important to check *back* regularly. Ask: 'Have I achieved any of these outcomes yet? What do I still need to learn in order to meet these outcomes?' Write down those things you still think you need to learn, and use them to focus your learning.

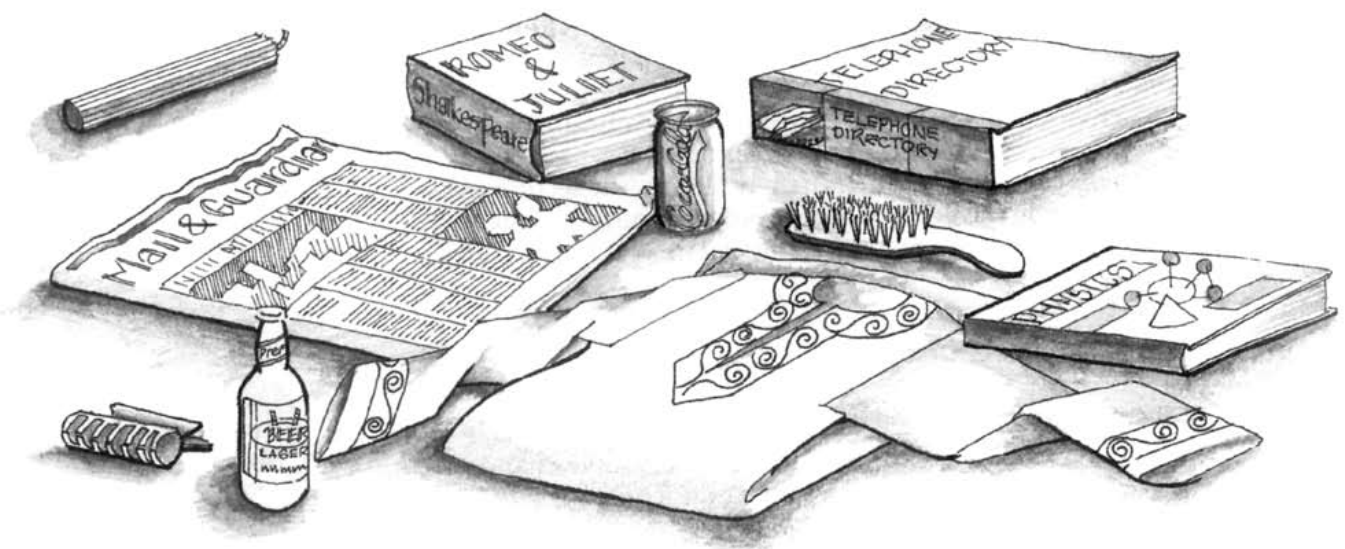
## 2.2

Using media resources in OBE:  
A case study

## Using everyday resources to engage learner interest

A teacher staggers into the room carrying a large sack. She empties the sack. The class looks in amazement at the assortment of objects that tumble onto the floor. Nomsa, the teacher, turns to the class and says:

*'I've been away and when I returned I found these items in my back room. Clearly someone decided to use this room while I was away. I need to find this person but have no idea of the kind of person I'm looking for. I thought if we analysed these objects we might be able to get a "picture" of the person I'm looking for.'*



Do this activity quickly. Spend no more than 20 minutes on it. Do it with another teacher or fellow student.

We will often ask you to play the role of learners and actually do activities designed for classroom use. But we also ask you to be reflective: we want you to think *why* these teaching techniques were used, *how* they teach, etc. That is *why* question c is important.

**ACTIVITY 1**

Play this game with a partner. See whether you can use these belongings to get an idea of the kind of person who stayed in the teacher's back room. You should ask questions such as: Was the intruder male or female? young or old? rich or poor? homeless or a friend/neighbour? educated or not? etc.

- a Write up as accurate a description as you can of the kind of person you think slept in the teacher's back room.
- b Explain why you made the deductions you did. (In other words, if you said the person was young, what 'evidence' have you got to support this?)
- c Why did Nomsa start her lesson like this? What was she trying to teach her class?



### What was this teacher trying to do?

Some of you may have said that Nomsa is wasting everyone's time. After all, she didn't explain the purpose of her lesson. You probably also found it very difficult to agree on the kind of person to whom these objects allegedly belong. So why did she play this game with her learners? This was her reply:

*'First, I wanted my learners to use their imaginations. I wanted them to paint a picture of this person in their heads. Second, I wanted them to think, to make deductions from the If evidence" (to infer) and to be able to defend their analysis. This is an important learning outcome, especially in history (or Human and Social Studies). Third, I wanted to intrigue them. I wanted them to end this little game wanting to know more ...'*

In other words, finding who these objects belong to isn't important. Nomsa's teaching point is to introduce learners to the key historical concept, the role *evidence* plays in *history*. But she was also developing two other important learning skills:

- The ability to *infer*. This means to analyse something and, by doing so, to understand it better. This kind of skill will also be used in analysing poetry and literature, understanding science experiments, and so on.
- The ability to *imagine*. This is a skill that will also be used in a number of learning areas. Being able to 'brainstorm' as many answers as possible before narrowing these down to a final choice is an important benefit of learning.

## Using popular media resources to deepen learning

What did Nomsa do with the interest she had evoked? What concrete knowledge, skills or attitudes did she proceed to teach her learners?


Nomsa's next move was to show the class a number of photographs. She said this new 'evidence' had been received from a neighbour who said she was sure one of these photos was of the intruder. Nomsa asked her class whether the evidence they had gathered from the person's belongings could assist her in identifying the correct photograph. There was a lot of debate, but Nomsa insisted that learners provide *strong arguments* as to why they linked the belongings to a particular photograph.

Then, while the class was still debating furiously, she handed out short biographies of famous historical figures which she had cut from *Time* magazine (see page 16). She told her class that people in her neighbourhood had provided her with this further 'evidence'. She asked the class to see whether they could use this evidence to decide, finally, on which of these historical figures might have slept in her back room. When the double lesson ended, all the learners were engrossed in reading the biographies. Nomsa asked them to complete their reading at home and to write half a page explaining their 'verdict'.

The biographies on page 16 are taken from various editions of *Time* magazine: 12 and 19 July 1999. *Time* is a useful source of well-researched and readable articles about a wide range of topics. However, it does have an American bias, but this can be used to teach your learners to be aware of media and historical bias (see Section Five).

Note that *Time* magazine's 'Letters' page often contains criticisms which teachers could use to extend their learners' thinking.

**1874** Born Nov. 30 in Blenheim Palace, Oxfordshire, England  
**1911-15, 1939-40** First Lord of the Admiralty  
**1940-45, 1951-55** Prime Minister of Britain  
**1964** Retires  
**1965** Dies in London




**WINSTON CHURCHILL** It is one of the 20th century's ironies that the most poignant tribute to Winston Churchill came from one of the most repugnant tyrants of our time. Toasting the British leader at Yalta in February 1945, Joseph Stalin said, "I can think of no other instance in history where the future of the world depended on the courage of one man." Without that one man, whose

abhorrence of tyranny was matched by his contempt for its appeasers, the second half of the century would have become a Nazi-dominated nightmare. That the world witnessed instead the triumph of democracy, the defeat of totalitarianism (including the downfall of Stalin's own empire) and the emergence of new nations—not least the rebirth of Israel—must be attributed to Churchill's indomitable leadership and prophetic vision.

—Benjamin Netanyahu, Prime Minister of Israel

**W.E.B. DU BOIS** The great African-American intellectual is the Person of the Century for me. Du Bois was the first black Ph.D. from Harvard; he was one of the founding fathers of the field of sociology. He helped establish the N.A.A.C.P. and edited its journal, *The Crisis*, for 24 years. He was an architect of the Harlem Renaissance and the civil rights movement, and throughout his life brilliantly fought against racial discrimination and for the full participation of blacks in American society. He conceived of the *Encyclopedia Africana*, a comprehensive history of the African diaspora. He was a staunch opponent (with Bertrand Russell) of the use of nuclear weapons. He published dozens of books and thousands of pivotal essays. Who could possibly have done more than he to redefine American democracy over 60 years of the 20th century?

—Henry Louis Gates Jr.  
 Chair of Afro-American Studies, Harvard University




**1868** Born Feb. 23 in Great Barrington, Mass.  
**1909** Helps found the N.A.A.C.P.  
**1910-62** Fights racial discrimination in the U.S.  
**1919, 45** Backs Pan-Africa movement  
**1963** Dies in Ghana



**BORN** April 20, 1889, in Braunau, Austria  
**1933** Becomes Nazi dictator of Germany, proposes "Final Solution" to "the Jewish problem"  
**1939** Starts World War II  
**1945** Kills himself

**ADOLF HITLER** It would be awful to see his face on TIME's last cover of the millennium, but I must conclude, with the greatest sadness and reluctance, that the person who had the most profound impact on the events of the 20th century was also the century's most evil person: Adolf Hitler. The century was filled with inspirational leaders who advanced its most powerful *idea*, freedom of the individual—people like the two Roosevelts, Churchill, Gandhi and Martin Luther King Jr. But the poison unleashed by Hitler and his terrible contemporary Joseph Stalin survives. Not only must we still mourn, at century's end, the tens of millions who died as a result of their actions, but we can still see in many parts of the world, from Kosovo to Rwanda, murderous echoes of Hitler's theories and policies, promoted through methods of mass communication and propaganda invented by Joseph Goebbels. The essence of Hitlerism—racism, ethnic hatred, extreme nationalism, state-organized murder—is still alive, still causing millions of deaths. Freedom is the century's most powerful idea, but the struggle is far from over.—Richard Holbrooke, U.S. Ambassador-designate to the United Nations

**MOHANDAS GANDHI** is my choice for Person of the Century because he showed us a way out of the destructive side of our human nature. He demonstrated that we can force change and justice through moral acts of aggression instead of physical acts of aggression. Never has our species needed this wisdom more. —Steve Jobs, co-founder, Apple Computer Inc.



**BORN** Oct. 2, 1869, in Porbandar, India  
**1915-20** Begins his struggle for India's independence  
**1947** Helps end 190 years of British colonial rule in India  
**1948** Assassinated by a fanatic opposed to his tolerance of other religions

Biographies from Time magazine

Does this lesson seem to be going anywhere now? When we asked Nomsa why she had done these things, this was her reply:

*"I'm a history teacher. But my learners get bored by history. So I had to engage their interest, and learners always seem to love puzzles like this. Another problem is that learners often want to memorize textbook history rather than learn how to think like historians do. I want them to understand how history is written. So I played a game where they began practising the skills historians need. But I know that my learners watch lots of television and really identify with cop stories (on TV and in their lives!). So that's why I used language like "evidence" and "verdict", and why I asked them to be "detectives". I then linked this to what historians do. I posed questions similar to those faced by historians (and detectives): "What happened here? What does the evidence suggest is the truth? As you uncover new evidence, does your story change?" And, finally, "Can you defend the story you have written?"*



Do you think Nomsa has achieved what she set out to do? Did her 'game' increase learners' interest in history and give them an idea of how to do history?

## Using educational media to consolidate conceptual learning

Later we found that Nomsa hadn't just chosen any old biographies. She had chosen biographies that had links with the content she needed to cover in the Grade 7 Human and Social Studies curriculum. The lesson began with a couple of learners reporting which biography they had linked to the belongings. Nomsa allowed a few minutes for debate among learners about the validity of the reasons given by other learners. Then Nomsa began consolidating her lesson.

She handed learners a worksheet which asked them to choose one of the historical figures, and then to write a 'few pages' on that figure. (Nomsa said it would be part of a chapter for a new Human and Social Studies textbook.) Here is a copy of her worksheet:

### Developing a new Grade 7 Human and Social Studies textbook

Human and Social Studies is a new learning area in the South African curriculum. We have been asked to assist publishers in writing a new textbook. I'd like you to do the following research in pairs.

Your four-page 'chapter' should provide learners with an understanding of at least the following aspects. Obviously you may add any interesting additional information.

- Describe the historical period in which the person lived. (What else was happening in the world and in South Africa at the time?)
- Describe the community and country in which the person lived. (What did people wear? What did they do for fun? What kinds of work were they involved in? What was the geography of the country?)
- What were the religious and moral values of the person, his or her community and the wider society? (What kind of political system existed? Were there any inequalities in this society? What kinds of religious worship existed?)
- Conclude your chapter with an 'analysis' of the person's contribution to society. You should provide a convincing argument as to why this person (and his or her society) is important to South Africans.

Check that your research is good enough for publication by consulting the 'Good Research Guide' the publishers have given us.

This 'Research Guide' – which Nomsa had developed – reminded learners that they had to collect reliable evidence to write their report, It reminded them to remember – from the game they had just played – how important it is to *substantiate evidence* and *develop strong arguments*, It gave them guidance about where to look for further 'evidence'. It said: (Start by reading your textbook and then consult two other books, or Internet references.)

They began this work in class, but only had about ten minutes before the bell rang. Nomsa said they would complete this work in the next two lessons but also told learners that they had to do 'at least an hour's work' outside school hours in order to complete this task.



This is an important activity. Take your time. Discuss it with a fellow learner. Spend about an hour on this activity.

Why not use Nomsa's teaching principles to design your own lesson? Add this to your resource file.

## ACTIVITY 2

Re-read the description of Nomsa's teaching programme. Discuss it with a fellow teacher and then answer the following questions:

- a What kinds of resources did Nomsa use to teach?
- b Why did she use the various resources? In other words, how did these resources assist learning?
- c How did Nomsa ensure that learners also learnt about history rather than only having fun?
- d How is this kind of teaching different from teaching that you have experienced?

## What has this taught us about a 'resource-based' OBE?

We thought Nomsa's programme of lessons was interesting in a number of ways. It demonstrated some of the best features of outcomes-based education, while not lapsing into the aimless and non-educational activities that sometimes characterise OBE. We also thought Nomsa demonstrated how a range of 'new' and 'old' media can be used both to engage learner interest and to develop higher-level conceptual understanding of the learning area.

Here are some points that we would use to 'check' the quality of our own 'resource-based' teaching in future.



'Checklists' are a set of criteria against which teachers can 'check' their lesson planning and teaching. They provide a useful first step in reflecting on your teaching. We use these frequently during this module. We would urge you to use them, but not to do so uncritically. Instead, we'd like you to adapt those we have developed (like the one we have drawn up from Nomsa's teaching), and then copy them into your resource file. You should find that you will adapt them further as you use them.

### Good resource-based teaching

- *It should engage learner interest:* The lesson begins with a problem. This problem engages learner interest and gets learners thinking and talking,
- *It should link learner experience with new and unfamiliar educational concepts:* The 'game' draws on learner experience of 'cop stories' by using 'detective' and 'investigation' metaphors (such as 'use this evidence') in order to introduce important historical concepts and skills, such as the role of research and evidence in history.
- *It should encourage active learning:* Nomsa uses a wide range of resources with *good questions*. This encourages active learning by learners rather than lecturing to passive learners. Nomsa seldom lectures. Instead, she observes and intervenes at critical learning moments. Learners remain active throughout.
- *It should use different resources to develop increasingly higher levels of learning:* Nomsa elicits learner interest and gets them thinking with a bag of simple, non-media, non-educational resources *and* an intriguing puzzle, She then introduces short, historically-flavoured articles from the popular media (the *Time* biographies) and some new questions. Later Nomsa refers learners to longer bits of reading from educational media (such as textbooks and encyclopaedias) to consolidate their learning and to develop more sophisticated reading and writing skills.

- *It should develop in-depth skills and knowledge within an integrated learning area:* Nomsa developed key historical concepts and processes – she focused on enabling her learners to *do* history – but also linked this to the broader understanding of society. She did this through choosing biographies of people from countries covered in the Human and Social Studies learning area, and by means of a worksheet that had questions relating to aspects other than history.
- *It should develop other critical cross-field outcomes within all learning areas:* Nomsa created learner activities that developed *both* specific subject/ learning area skills and knowledge *and* generic skills and understanding, such as reading, thinking, writing, and debating.



What do you think? You may want to refer to some of the OBE literature you have, and assess to what degree Nomsa could be judged a good OBE teacher. We return to Nomsa's teaching in Section 2.4., where we develop the idea of conceptual learning more thoroughly.

# 2.3

## Transforming popular media resources into learning resources



You should have spent about two hours on this module so far.



This activity will show you just how much (or how little) the media feature in your daily life. Spend about an hour on the concluding part of this activity. Obviously this will be preceded by you recording your 'media use' times as they occur during the day.

This exercise can be used with your own learners. You could use it to teach them an aspect of media literacy. We develop media literacy ideas more thoroughly in Section Five.

### The differences between popular and educational media resources

In this module we use terms such as 'media', 'popular media' and 'educational media'. But what do we mean by these terms? Rather than give you a set of definitions, we'd like you to do the following activity. It is an activity used by a teacher in Soweto to demonstrate to learners just how many 'media' they engage with every day.

#### ACTIVITY 3

- a Keep a record of all the different forms of media you experience during a day. This means you should record a timetable like the one below. (The details are those of a 15-year-old Gauteng learner, Zaki.)

23 FEBRUARY 2001: ZAKI TSHABALALA		
TIME	MEDIA	COMMENTS
At home 6 - 7 am	Radio	I listen to music (YFM) while I get ready for school.
7 - 8 am	Music tapes	Listen to taxi tapes on way to school
School time 8 - 2 pm	Textbook in maths - only for 5 minutes Educational videos in geography - 15 minutes Novel in English - I read for 1 minute but we read for a total of 10 minutes	We mostly listen to the teacher. Sometimes we use textbooks and worksheets that the teacher has made
Breaks 12 - 12.30 pm	Magazines and tapes - for about 20 minutes	I often read comics and teenage magazines during break, usually while we also listen to tapes
Afternoons 3 - 6 pm	I watched <i>The Bold and the Beautiful</i> and <i>Isidingo</i> (1 hour in total)	Sometimes I watch some educational TV, but it's quite boring. I always watch some soaps ... often while I am doing my homework (no homework today!)
Evenings 7 - 10 pm	I watched the news and <i>Generations</i> (1 hour); then I went to bed and listened to music (YFM) for about an hour.	Some evenings I watch a lot of TV, but on others I listen to the radio, or read magazines, or phone my friends

- b** Compare your 'media usage' with that of Zaki and of a fellow learner (or teacher). Think about these questions:
- What percentage of your day is taken up by media usage?
  - How do you engage with media? (Do you listen/watch/read actively, or is the radio or television on in the background?)
  - How much time do you spend engaging with media that are designed to educate?
  - Is there any difference between the way in which you engage with educational media and how you engage with 'popular' media?
- c** Work out a seven-day record of your own media use. (If you are working with a class, you could ask them to work out an average use for their group and then for the whole class.)

You will notice that all the 'media' mentioned by Zaki *communicate* something to you. In all cases mentioned by Zaki, this communication has the purpose of either entertaining (music, soap operas such as *The Bold and the Beautiful*), or informing (news), or educating (textbooks). But she doesn't mention a number of other objects that *communicate*. For instance, what about the labels on the coffee tin she used at breakfast, or the chip packet or cold-drink tin that she might have purchased during the day? What about the billboards next to the road she travelled along to get to school? Or the advertising on the taxi she drove in? Or the label on her friend's track shoes (Nike)? These could also be called 'media'. They communicate information about products, but also often attempt to *persuade* us to buy these products.

#### ACTIVITY 4

Watch part 1 of the video. Then answer the following questions:

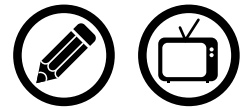
- a** How many different popular media formats appeared in or were mentioned in this short excerpt?
- b** What ideas were you given about how you, as a teacher, could turn a popular media format into an educational resource?

Let's tackle some definitions now.

- We define **media** as those resources that are **deliberately** used to communicate with us. The purpose of the communication may be to entertain, inform, educate or persuade.
- **Popular media** refer to media that are used by large numbers of people, and include television, radio, films, newspapers, magazines, advertising leaflets, billboards, and the Internet. Their major purposes are to entertain, inform, and persuade.
- **Educational media** refer to media developed specifically for the purposes of educating. The most common example would be textbooks. 'Structured learning packages' – print-based, on the Internet, or in the form of CD-Itbms – are becoming more widely used. All educational media are characterized by a selection of content which is then **logically ordered** so as to develop learning.

*Popular media* can (and should) play an important role in *supporting* learning. Their strength lies in creating a connection between the learners' experiences and school learning. They can activate learner interest, and can also be used at the end of a learning process when learners explore ways in which formal school knowledge can be usefully applied in real life.

But popular media are not designed in the logical, structured and developmental manner that is essential to good, higher-level learning. This is why *educational media*, especially well-designed textbooks, should remain the *foundation* on which learning in schools is built. While Nomsa frequently used popular media, she used textbooks and other kinds of educational media to *consolidate* learning. Textbooks are designed in a manner that provides teachers *and learners* with a structured, well-



Spend about 20 minutes on this activity. Watch the video twice. Did you find that you noticed more popular media formats during the second viewing than you did the first time? Did you list *indicators* of popular media, such as the radio aerials on cars? What about the billboards that line streets? Did you mention them?

sequenced path towards a high-level understanding of key concepts in their learning area. In this sense, they are very valuable learning aids.



## Using media resources educationally: A brainstorming exercise

In Section 2.2 we introduced you to one form of *problem-based* teaching and learning. Nomsa's lessons also drew on learner *experience*, and used a simulation and different kinds of media to develop an understanding of important historical concepts and to evoke the *experience* of working as a historian. This is sometimes called *experiential learning*. Experiential learning, role-plays, simulations, and problem-based learning are all methods consistent with outcomes-based education principles. They all create active learning environments and focus on developing skills and understanding.

But what role can media play in enriching these methodologies? We suggest that you begin an exploration of this through a quick brainstorming activity.



Do this activity quickly. Don't spend more than 30 minutes on it. A 'brainstorm' means that you write all ideas down. Don't discuss them.

### ACTIVITY 5

Look at the picture of objects on page 12. Then, with your partner:

- Write down three objects you would use in a resource-based lesson (or series of lessons) you planned.
- Think about how you could use these objects to enrich your teaching in one or two learning areas. You don't need to think of detailed lesson plans - just brainstorm some ideas. But think also of how you would move from the initial stimulation to a more in-depth study of your topic.

Here is one teacher's example to help you. Her ideas are represented in a spider diagram.



**LANGUAGE, LITERATURE AND COMMUNICATION:**

Learners could play role of advertising agency.

**Initial task:** Design a logo and slogan for a new cold-drink.

**Expansion:** Study other cold-drink adverts... lead into teaching about the kind of language used to persuade people to buy...

**ARTS AND CULTURE:**

Learners could play role of hospital nutritionists.

**Initial task:** Learners could analyse the nutritional ingredients on the can. Then compare with other drinks, e.g. fruit juice.

**Expansion:** Ask to do research about nutritional value of listed ingredients and present report to hospital about 'healthiest' drink (and/or dangers of this drink).

**MATHS AND NUMERACY:**

Learners could play role of restaurant owner.

**Initial task:** Design menu with cold-drink sold in 100 ml and 300 ml glasses (e.g. if this 340 ml can cost me R2.60, how much would I charge per glass?)

**Expansion:** Lead into lessons about ratios and fractions. Could introduce idea of profit (e.g. if we want to make a 10% or 20% profit, what would each glass cost?).

(One teacher suggested that this be developed into a real business venture where groups compete to sell food and cold-drinks at break.)

**ARTS AND CULTURE:**

Learners could play role of fine artists.

**Initial task:** Challenge learners to produce a piece of art with cans.

**Expansion:** Introduce lesson on 'transitional urban' art: paintings, sculptures, cars, suitcases, (etc.), made with tin cans.

Learners read further. Research what people think of this art....

**A NUMBER OF POSSIBILITIES:**

**Environmental questions:** What are these cans made of? What happens when we throw them away? Does the company do anything to prevent littering? What more could they do? Do their advertising billboards constitute an environmental hazard?

**History and sociology questions:** How popular is cola? What is cola made from? Are the contents worth R2.60? What is the balance of the R260 spent on? Where does it come from? What images does their advertising portray?

**ACTIVITY 6**

Turn to Part 1 of your audiotape. Listen to the various teachers talk about using popular media resources in teaching. Make notes of points that you think are important. Add them to the 'checklist' you began developing earlier (pages 16 and 17).

**Resources don't teach – teachers teach**

The brainstorming activity, Nomsa's teaching, and Potato Crisp Pedagogy used a wide range of 'resources':

- *Nomsa* used a bag of personal belongings, a collection of photographs, short biographies cut from *Time* magazine, school textbooks and encyclopaedias.
- The '*brainstorm*' teachers used a cola can, adverts of other cold-drinks (probably cut from magazines), mathematics textbooks, other cold-drink containers, textbooks and reference books on nutrition, examples of 'transitional urban art' (probably some real examples, as well as pictures cut from magazines), textbook or reference books (or magazine articles) on 'transitional' art, information about cola (a video, magazine articles, reference books), etc.
- *Potato Crisp Pedagogy* used crisp packets, potatoes, and a number of information sheets about colonialism, agriculture, industry, etc.

Have we left out any other important resource? We hope you said: 'Yes, what about the teacher?' We often forget that media resources, on their own, don't teach. It is the *teacher* who uses resources to initiate the desired learning. Imagine how much



Spend about 30 minutes on this activity. On the tape you will hear John Aitchison, a South African adult educator, talk about an exciting teaching approach called Potato Crisp Pedagogy. Hamburger Pedagogy – developed by American teacher, Ira Shor – is another famous teaching idea developed around food. In both cases, the educators use the food, its packaging, and its advertising to initiate complex teaching about health, development and colonialism, while also teaching reading, statistics and media literacy. Aitchison's ideas can be found in Criticos, C. (Ed.) 1989. *Experiential Learning*. Durban: University of Natal, Durban, while Shor's ideas are discussed in Shor, I. 1980. *Critical Teaching and Everyday Life*. Montreal: Black Rose.

learning would have occurred had Nomsa's learners simply been given the resources and then been told to 'get on with it!' There would have been chaos! And no learning would have occurred. You may remember that John Aitchison said the same thing about Potato Crisp Pedagogy. The teaching only worked because of his planning and his mediation.

Learning occurred because Nomsa and John:

- were clear about their desired learning *outcomes*;
- *planned* their learning programmes carefully;
- designed *learning activities* and worksheets to guide their learners;
- *selected media resources* appropriately once they were clear about their desired outcomes and the activities they were to use to achieve these;
- *mediated learning in a logical and sequential way*: they kept learners on track and introduced new activities (and media) at strategic moments.

Resource-based learning, like all classroom methods that focus on learning rather than teaching, requires thorough planning. Reading from a textbook, or lecturing to a class, or simply getting learners to copy down notes, can often be done with little preparation. One of the major changes to teachers' work within a resource- and outcomes-based education is the increase in time spent planning. Look back at Nomsa's lesson and the teachers' 'brainstorming' ideas. You will notice that all the teachers plan how they will get learners to move:

- *from* the initial resource-based activity, which was aimed mainly at *stimulating learner interest*;
- *towards* the use of other resources – which are often media resources and usually include textbooks or other books – *to deepen their learning*.

The teachers are clear about the outcomes they want to achieve and guide learners through a number of stages towards the understanding and skills they want their learners to develop. Their teaching is centred on learning. They don't fall into two common traps:

- *Return to thoughtless teacher-centred teaching*. They know that talking about abstract concepts won't result in learning even though they, as teachers, might complete the work!
- *Indulge in poor learner-centred teaching*. They know that activity and talking by learners is only useful when it develops knowledge and thinking. This requires teachers to have a clear learning purpose in mind.

## The educational opportunities offered by popular media

By now you should already have a list of ideas about how you could use popular media in your teaching. If this is the case, the next activity is a revision exercise. Do it quickly but imaginatively!



Take about 45 minutes to read this article and answer the activity questions.

### ACTIVITY 7

Pair up with a fellow student. Then, in no more than ten minutes, think of as many ways as you can in which different kinds of media can be used in your teaching to achieve these outcomes. Don't debate the ideas, simply write them down.

Oh, media allow us to travel to all those strange places to which we've always longed to go! I love watching travelogues on TV! I've used short clips from these, as well as newspaper travel supplements, in my geography lessons, and my students love it. Sometimes media bring places and circumstances we don't want into our homes, such as news stories on wars or famines. But I suppose these are also useful . . . I suppose newspapers allow us to experience things and places that we will never be able to experience in real life . . .



I like the wildlife and nature programmes on TV. And some of those futuristic science programmes. Showing learners those short bits where the camera records the flower opening really does make their biology come alive! It links their schoolwork with real life! And the other day I recorded a few minutes of a programme that showed how satellites send messages around the world. I mean this is so abstract in the textbook, but these pictures will really clarify things for my learners.

Well, I'm not a teacher but I enjoy reading . . . and listening to the radio. I've always preferred this to TV . . . even when I was at school. I think it's because I have the freedom to imagine what the characters in the radio play are like from their voices, or imagine what the places in my novel look like by interpreting the words and sentences – the atmosphere created! It's fascinating how different people create different pictures in their heads. I'm often horrified by the way in which movie directors interpret characters I have read about . . .



Yes, I also enjoy the radio stories . . . I sit all afternoon listening to the people argue! They have almost become like friends . . . their experiences are like mine! Sometimes I almost imagine that I'm back at the fire and my dad is telling me those stories. Even though he told them many times, I loved them . . .

I think I prefer TV and films. I think these are actually the younger generation's new storytellers! *The Bold and the Beautiful* or *Star Wars* are their new folktales! They also love comics. But I don't think this is bad. I teach English and often ask them to translate some Shakespeare play into modern soap opera language . . . and give them new costumes. Sometimes I ask them to draw a cartoon strip of their novel. They seem to have fun and, at the same time, practise their reading and writing skills . . .



But you can also use radio to improve language skills . . . and listening skills. I remember a few years ago a teacher of mine often brought in English radio programmes – news, talk shows and stories – and made us listen. Most of the time we enjoyed it. She seemed to have all sorts of exercises, such as asking us to summarize the news, or to turn it from 'reported' speech into 'direct speech'. But the one activity I loved was when she'd stop a story just as it got interesting and ask us to write the conclusion . . .

### **Well, what do you think?**

We're sure you listed a couple of uses that these people didn't mention. Four things struck us as interesting:

- First, everyone spoke about *reading* in some way or the other. This included reading words on the page but also *images*. This isn't surprising. What distinguishes all media resources from other resources is that they are comprised of words and images – they convey information. This provides us with a rich opportunity to develop the reading skills of our learners across the curriculum.
- Second, everyone spoke about *teaching reading in the context of the real world*. They suggested that we could use media resources to develop our learners' ability to understand and manipulate the *world* around them. While this skill – often called *critical literacy* – has as its foundation the ability to read, it also requires that we teach people how media are used to construct our view of the world and to persuade us to accept certain ideas and dislike others.
- Third, a number spoke of media *evoking interest* and *imagination*. This was expressed in different ways. Some liked the radio because it gave them the freedom to create their own characters and places. They could use their minds to *imagine*. Another person mentioned that travelogues allowed us to 'visit' and see places we could never visit in reality. This allowed learners to picture things and places rather than them remaining abstract words on a page.
- Finally, many suggested that popular media could be used to *link school learning with learners' lives*. Introducing concepts through a medium familiar and accessible to learners – such as newspapers or television – increases the chances that learners will be interested and able to understand concepts. Newspapers also provide many examples of how school knowledge can be used practically.

## The potential dangers of using popular media in education

Using popular media, learner experience and games to brighten up learning is exciting and can contribute to better learning. But there are dangers. As we increase the range of media in our teaching, we should try to avoid these dangers.

Have a look at this summary of an **English** lesson plan.

### LESSON PLAN: GRADE 10 LANGUAGE AND COMMUNICATION

#### **Topic:**

*The AIDS problem*

#### **Outcomes:**

- *Learn what AIDS stands for.*
- *Understand what a big problem AIDS is in South Africa.*
- *Be able to do something about AIDS in their own lives.*

#### **Teaching method**

1. *General class discussion. Show the class a photograph of President Mbeki wearing and AIDS ribbon. Ask them if they know what this means. Then ask them if they remember the Sarafina affair. Do they know what it was about?*
2. *Tell them both of these things about AIDS. Tell them AIDS is a big problem in South Africa so it is often in the news.*
3. *Hand out the newspaper article 'A vicious circle: AIDS and gender oppression'. Tell them to read the article on their own.*

4. Discuss in groups. Write these questions on the board:

- Is AIDS a problem in South Africa?
- Does it affect everyone equally?
- What can we do about it?

5. Each group reports back.

6. Sum up lesson.

## A VICIOUS CIRCLE : AIDS AND GENDER OPPRESSION

By Chloe Hardy

Complaints Officer: Commission on Gender Equality

South Africa has one of the fastest-growing HIV/AIDS epidemics in the world. Studies show that in 1998, one in eight adult South Africans were infected with HIV. The virus has a disproportionate effect on the poor. Add to this a legacy of gender and race discrimination and the epidemic of HIV / AIDS in South Africa takes on frightening dimensions.

In the industrialised countries of the West, the AIDS epidemic affected specific groups, and was thus easier to contain. In these wealthy countries people with HIV have access to medication and proper nutrition, which allows them to live longer, illness-free lives.

In the past most education campaigns have focused on methods of preventing infection, such as using condoms, abstaining from sex, or staying faithful to one partner. The problem is that these campaigns failed to take into

account the realities of women's lives. In South Africa, women's social and economic status makes it difficult for a woman to talk to her husband or lover about using condoms, and impossible for her to insist on mutual faithfulness in their relationship. Many women do not know that they have the right to refuse to have sex with their husbands or partners, and many more face marital rape if they try to refuse. The millions of South African women who fear domestic violence or being abandoned and left destitute do not have the power to choose safe sex.

Rape statistics in South Africa are terrifyingly high. Every day, women and girls are raped by gangs, by strangers, by members of their communities, by their boyfriends, and by their relatives. Taking a combination of drugs (including AZT) within 72 hours of being

raped might reduce the risk of infection, but these drugs are expensive. A good medical aid will cover the cost, but this is no comfort to the high percentage of women who are unemployed or working in low-income jobs.

Women are differentially affected by HIV/AIDS in other ways too: because women are exposed to more fluid during sex, it is easier for a woman to contract HIV. Women are also put under a lot of social pressure to have children. This means having unprotected sex, and running the risk of becoming pregnant when HIV positive.

One of the hardest choices is deciding whether to tell family and friends about their HIV status. Due to public ignorance and the stigma surrounding the disease, people with HIV/AIDS are often rejected by their relative and friends, at precisely the time that they need them most. People who live in poverty generally have no one but their families and communities to turn to in times of illness. When people

with HIV/AIDS are abandoned and ostracised by their communities, they fall into further poverty, and this hastens the onset of AIDS. Prejudice and discrimination against those with HIV/AIDS leads to silence, which leads to further infection.

Even when they do not have HIV, it is to the ill and orphaned,

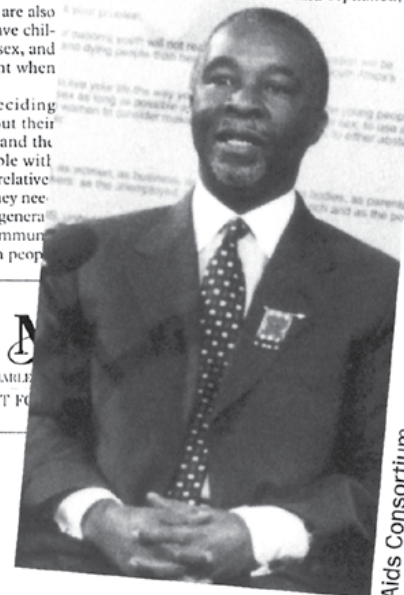
AIDS. WHATEVER YOU NEED TO KNOW THERE'S ONE FREE NUMBER TO CALL



AIDS HELPLINE  
0800-0123-22



CHARLES MOTT FOUNDATION



Aids Consortium

### What did we think of this lesson?

We were initially impressed. There were clear outcomes listed. The teacher chose a photograph of a well-known personality and event to introduce the topic. She followed this up with a provocative and interesting newspaper article. The teacher also designed a lesson that kept learners active, and tried to link it to their lives (by asking what they would do about it).

But then we were reminded that this was supposed to be an *English* lesson. Yet all of the outcomes were really *lifeskills* outcomes. Do you see any that relate to improving reading, speaking, listening or writing skills? Do any develop media literacy, or any other kinds of literary skills? We couldn't find any, and concluded that the teacher had become so excited by the content of the article that she'd forgotten how she should use this to develop English language competence. While it seems that the learners had a great deal of fun, and learnt something about AIDS, they did not seem to learn much about English. (Obviously they did develop some language skills through their reading and discussion. But this is *incidental* learning. While the incidental learning of language in other learning areas is something teachers should aim at doing – and we will demonstrate how this can be done later in this module – developing language competence should be explicit and conscious in *language* lessons.)

But, second, even if this was a life skills lesson, learners did not learn about AIDS in a systematic and in-depth way. The teacher only used one article and that article focused, in quite a sensational way, on one small aspect of the problem. We were not convinced that learners really understood AIDS, or could do anything with the knowledge they'd learnt. Their interest had been aroused, but their understanding had not really been developed. Recent South African research provides a number of good examples of classroom practice that is learner-centred, based on learner experience, and which uses group work. In other words, it looks like good outcomes-based and resource-based learning. But, ultimately, the learning – as in this lesson – remains shallow, and important conceptual understanding of the learning area is never developed.

Third, while newspapers, magazines, television, etc. are accessible and potentially exciting, they only offer fragments of information rather than writing that demonstrates sustained argument. An important learning outcome for all learning areas is the ability to link bits of information and use these to develop convincing arguments. So, while popular print media provide teachers with an exciting way of evoking an interest in reading, and of developing lower-level reading skills, they do not provide the means to develop the advanced reading skills required to understand arguments or to be analytical.

Keep these warnings in mind. When using popular media, make sure you:

- Make the link between the media you use to evoke interest and the particular concept you need to teach: don't get distracted by the many debate possibilities offered by unstructured popular media.
- Ensure that you move from the simple, accessible writing and reading in popular media to the kinds of reading necessary for higher-order learning. In other words, consolidate learning by getting learners to read sustained arguments such as can be found in good textbooks.
- Enable your learners to make links between the fragmented 'facts' that often dominate popular media, to begin developing conceptual understanding and using this to analyse and argue.

We will deal with these issues in much more detail as we move through this Guide.

# Conceptual depth in media-based OBE: Concluding the case study

## 2.4

Let's return to our observation of Nomsa's teaching. We think that she provides us with a number of ideas about how to avoid the potential dangers referred to in Section 2.3.

### Getting learners to use skills and understanding

We were interested in how Nomsa would continue her teaching in Human and Social Studies. Would she leave the topic she'd developed – the role of evidence in historical research – and move on to other parts of the curriculum? This is what she said she would do:

*'No, I will continue developing the concepts introduced this week. But I'd change the kinds of activities, for two reasons:*

- *First, my learners need to go out and practise the research skills they've learnt. I want learners who can **do** history, not just know about it!*
- *Second, these learners are quite young. They get bored quickly, so I need to vary what they do to keep them interested. But I must make sure the learning still develops to a higher level and doesn't become fragmented.*

*'So I have planned a two-week activity in which my learners research the history of their family. They will then work in groups to develop "community" histories by pooling the histories of a couple of families. I've been thinking that we may develop a huge wall newspaper at the back of the class where they pin up the stories and photographs and other historical evidence" they have collected from their families. What do you think of this?'*

We thought it sounded interesting, so Nomsa showed us a 'Research Process Guide' she had designed for each group. It drew on the previous week's 'research' (see Section 2.1) and included questions like:

- 1 Where will you find the information required?
  - *Primary* sources of evidence: Interview family members and family friends. Read through original letters (if your parents have kept these) and collect photographs and other objects that give you an idea of the times.
  - *Secondary* sources of evidence: Visit the 'library' and read through newspapers and other documents from the period. (The 'library' is a file of articles I have photocopied from research I did in the Johannesburg library.)
- 2 Work with a friend to develop an interview schedule. What kinds of questions will you ask people? How will you record what is said?
- 3 How will you decide on the 'truth' when different people tell you conflicting stories? (In my 'library' there is an interesting article that might give you some ideas.)



If you want to complete this module in 20 weeks, you should now be starting *Week 2* of your studies.

Section 2.4 is complex; it needs to be worked through slowly and with a couple of re-readings.

*Note* how Nomsa slips in two new history terms, *primary* and *secondary sources*. She doesn't do this through asking learners to memorize definitions. Instead, she illustrates their meaning by *using the terms in an activity*.

This project ran for more than two months. It began with intensive classroom-based work where interview schedules were designed (as well as making other practical arrangements). After that, a lot of the work – like interviewing – was done after school while the reading of secondary sources was done in class. Nomsa did no formal talking, but she was available for queries. There were many of these! Each day she'd check a few learners' work-in-progress to ensure that learners were working and were on the right path.

This is one way of consolidating learning. Through this research project, learners have to *read* history, *understand* concepts and processes, use these, and finally *write* up a report. Clearly Nomsa is ensuring that a number of critical cross-field outcomes, as well as specific Human and Social Sciences outcomes, are being developed in this series of lessons. Learners are enjoying active learning, but they are also achieving a higher-level conceptual understanding of history.

### ***Integrating history into the Human and Social Studies learning area***

Nomsa's lesson might be described as out of step with *Curriculum 2005* because it still focuses on the subject *history* rather than the learning area *Human and Social Studies*. This is not entirely true. We remarked earlier that Nomsa had chosen biographies of people who, in some or other way, linked with other topics in the Human and Social Studies curriculum. For instance, she asked them to describe the country the historical figure came from. The 'geography' part of Human and Social Studies introduces learners to other countries, and Nomsa's worksheet got them to begin this kind of research.

We feel Nomsa's determination to ensure that learners developed real and useful *historical skills* would assist the learners to achieve *integrated* learning. This is so because *doing history* requires, first, higher-level learning which learners may well use in studying other areas as well. Second, the process of historical research demonstrated to learners that history, geography, economics, etc., occur in an *integrated* way in real life. They didn't need to be told this. And, third, the language and research skills would be used in other parts of this learning area and in other subjects.

### ***Is role-play and research an appropriate teaching method for young learners?***

Well, Nomsa's experience suggests that it is. But she did give us some advice: 'Change activities regularly to keep interest high.' We believe that useful skills – such as research skills – can be taught to young learners as long as:

- You ensure that they link in with your learners' lives and experiences. This would increase interest levels (and thus the ability to learn) as well as meet one of the 'rules' of good teaching, namely, proceeding from the familiar and concrete, and moving slowly to the less familiar (unknown) and abstract.
- You teach the concept at a simple level. Don't develop all the skills and understandings required to be a *real* history researcher, and don't develop them in complex ways. Instead, simply induct learners into the role of 'historian' by teaching them some basic history research processes and doing so through a meaningful set of activities.

## **What do we mean by conceptual learning and concept-based teaching?**

Nomsa used many learner-centred and problem-based methods in her teaching. She also used a variety of media resources and worked hard to use the interest she had evoked in learners to develop both:

- a deeper understanding of particular content in her Human and Social Studies syllabus;



- a more sophisticated ability to use important historical skills and concepts.

But we have also noted that media-based experiential learning sometimes results in superficial learning. Learners have great fun but learn only a few, often irrelevant facts, rather than information they can use. How do we develop a teaching style that ensures that students learn in a way that allows them to use the information they have learnt?

We would suggest that teachers move away from a focus on dozens of disconnected facts and, instead, focus on developing in their learners:

- the key **concepts** of their learning area. These concepts should allow learners to categorize information from their environment, and to organize such information in useful ways.
- the key general ideas – **generalizations** – from their learning area, to help them understand relationships, explain cause and effect, and predict likely consequences.

### **What do we mean by 'concepts'?**

Concepts are tools for thinking about the world. When we say: 'What is a vegetable?', what comes into your head? Maybe potatoes, or cabbages, or tomatoes? But if I say 'a rose', the concept 'vegetable' gives us the *conceptual tool* to say: 'No, that is not in the *category* of vegetable.' We can justify this by saying: 'It cannot be included because one of the *criteria* of "vegetable" is that it can be eaten by humankind.'

Someone might then say: 'Oh, so a steak is a vegetable?' We know that it isn't. But if our concept 'vegetable' *only has that one criterion* – that a vegetable is something which can be eaten by people – then meat should be included. This indicates that we need to develop a *number of criteria* in order to develop our concept, 'vegetable'. The concept 'vegetable' should contain enough criteria to enable us to *organize* large amounts of information – all the facts we learn – logically. It should answer the question: 'What, exactly, makes a vegetable a vegetable?'

We will use an example of a concept that learners have to learn about in a number of learning areas – Human and Social Studies, Economics, Development Studies, and even Technology – to illustrate what we mean by 'concept-based' teaching.

The general concept 'industry' enables us to bring together different kinds of factories and activities for making goods. By organizing this information conceptually, we can begin discussing bigger and more important questions such as: 'How does industry assist in the development of our country?'

However, we cannot discuss 'industry' unless we all know what we mean by this word. We must all have in our minds some image of *groups of people working, mostly in buildings, using machinery, with some kind of power source, to produce things in large quantities*. These would be the criteria that constitute the concept 'industry'. This would allow us to say: 'No, we don't think women weeding in a field would fit the concept of industry.'

### **From concepts to generalizations**

Concepts, generally, are fairly abstract. 'Industry', for instance, means little until we connect it to real objects, people or situations. Only when we have a very clear picture of what it involves in reality do we 'understand' a concept. Only when we have this 'understanding' can we make sensible general statements about it, such as:

- Industries are usually found in or near towns.
- Industries give many people employment and a wage.

These statements are called 'generalizations'. We're sure you will all realize how often we 'generalize' and how important the ability to generalize is. The problem is that we often generalize without thinking carefully. We might not have been clear about the concepts we are using in our generalizing. For instance, we might say: 'By abolishing caning we are destroying discipline in schools.' But, as soon as we say this, we



The rest of Section 2.4 is adapted from an excellent publication produced by the International Foundation for Education with Production, Gaborone: Seidman, G. and Stuart, J. 1990. *Working for the Future – A Teacher's Guide*. It is also a very useful source of simulation games.

are assuming that caning is a part of the concept 'discipline': that caning is a defining criterion of the concept 'discipline'. The problem with this generalization is that we haven't thought about:

- whether this is a useful criterion;
- what the other criteria may be.

Being clear about how we organize our information – how we conceptualize – enables us to be far sharper in our generalizations. It improves our thinking and problem-solving skills.

### ***The relationship between facts and concepts***

Concepts are more important than facts, but facts are needed as the starting point from which to develop concepts and the related generalizations.

Take the example of 'industrialization', a concept derived from 'industry' but on a still more abstract level. We can **build it up** by studying different kinds of production processes (in the past and the present), and by looking at what is happening in the learners' own country. For instance, it is important to know facts such as: 5% of our population are miners, 15% are factory workers and 3% are farmers.

Although these are not worth memorizing (because they will have changed in five years' time), they are useful because they allow learners to compare their country against other countries. This would allow learners to make judgements as to whether a country is 'industrialized' or not. Obviously, though, they can only make this judgement if they know what the criteria are for the concept 'industrialized country'. If the criterion is simply 'a country is industrialized when more people are employed in industry rather than agriculture', then the facts above will allow us to say that this country is 'industrialized' (since 20% of people are employed in industry and mining, and only 3% are employed in agriculture).

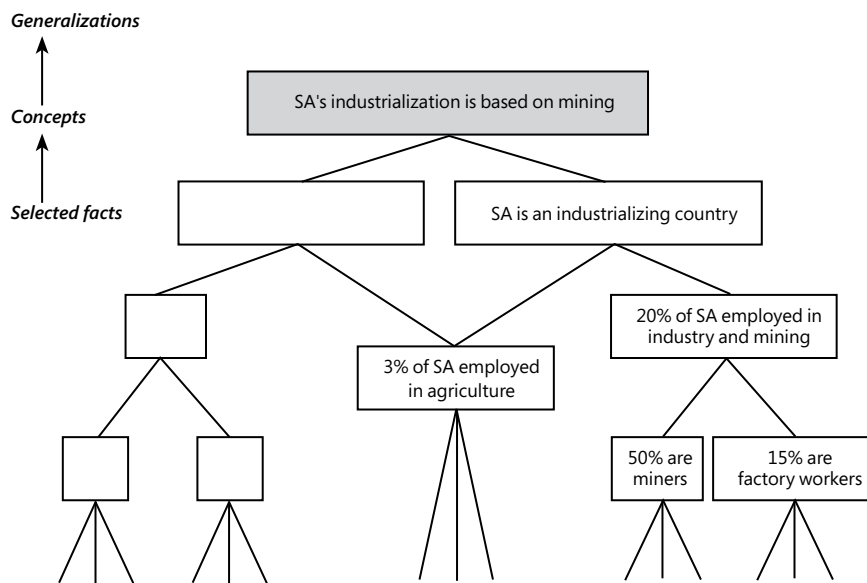
### ***The relationship between facts, concepts and generalizations***

By 'generalization' we mean broad statements that express some important idea; they may describe a general state of affairs, or point to a general relationship, such as cause and effect. Like concepts, generalizations can be formed at many different levels of abstraction and generality. Some merely describe, others go further. Here are some examples: 'Our industries are based on our mines' generalizes *within* a country, while 'Industries are usually found in towns' generalizes *across the world*. Both of these are fairly concrete generalizations. A more abstract statement might be: 'Industrialization implies urbanization.'

Some generalizations give explanations. Here is one: 'One reason for the rapid growth of British industry in the 18th century was the capital (wealth) accumulated from colonial trade.' This generalization could be extended so that it takes the form of a more general 'law of development', such as 'Industrialization requires previous capital accumulation'.

It is obvious that learners would not 'understand' such a statement unless they had studied the facts on which it is based. It is also obvious that learning facts without drawing them together into such powerful and useful generalizations is often a waste of time.

Another use of facts is to check generalizations against them. Some generalizations may be in the form of a hypothesis or prediction, such as: 'If a country has a good mineral resource base, industrialization will take place.' Such a statement can – and should – then be tested out against historical and modern evidence: do *all* countries with good mineral resources develop industries? If not, what conditions hinder or promote industrial development? Here, accurate facts are very important. The relationship can be summarized in a diagram:



It is the generalizations, together with the concepts embodied in them, which learners should understand and remember. The individual facts, such as the percentage of the workforce in mining, the names of industries and the towns where they're situated, can be *forgotten* once they have served their purpose. The understanding of 'industrialization', for example, is what matters.

## How do we *teach* conceptually?

How do we learn to understand such concepts? How did you acquire the concept of 'industry'? Gradually, or all at once? By visiting factories? Or by working in one? By seeing pictures? By reading? By listening to someone who has experienced industrial work describing it? Or from several of these possibilities?

When we teach we want learners to gain real understanding as quickly and accurately as possible. We can only do this by building on the experiences they have already had. The concepts must be related to something they already know. If the concept is very far from their experience, the teacher must bridge the gap in some way so as to lead them to it.

In some learning areas this is relatively easy. For instance, development studies or economics is about the real world, and it is often possible to link new concepts firmly to learners' previous experience. If real experience isn't possible, the teacher must provide some new 'experience', either real, Simulated, or by way of newspapers, books, magazines and pictures. Some possible practical ways of doing this for the concept 'industry' would be to:

- Arrange a visit to a factory.
- Use pictures from books, magazines or newspapers, or television, or any other form of visual aid.
- Relate the concept of 'industry' to anything in the children's environment that exemplifies it, such as heavy machinery in the fields or on the roads.
- Use a story in an 'industrial' setting, either from a book, or told dramatically by the teacher, or by a worker you invite into the class.

The more examples used, the better! Learners may need many examples before they grasp fully what 'industry' is, and what it isn't. It is easier, of course, to do this with some concepts than others; it depends on the level of abstraction. For instance, the concept 'capital' is quite abstract. The teacher may need to provide a real or simulated experience - a classroom game with play-money would be a simulation,

or a real productive exercise can be carried out, such as buying a box of fruit, for resale at a profit, or raising chickens, in order to explain this.

What we have discussed here is the so-called inductive approach. It is considered to lead to much better understanding of broad concepts, because it is based on the concrete experience of the learners.

### ***Teaching concepts inductively***

First, the teacher must have an overall view of the structure of the syllabus (or desired learning outcomes), and indeed, of the whole subject matter of the learning area. She must know what concepts and generalizations are critical to an understanding of the learning area. But this does not mean that all concepts are taught at once: good teachers will also know what concepts learners will not acquire until they are older or go on to further study.

Second, the teacher needs a clear understanding of learners' current understandings so that she can build on their present experience. Third, she must encourage learners to be active in their learning. In turn, the teacher has to plan the route carefully from where the learners are to where she hopes they will get to. She must plan it stage by stage, paying attention to the building up and to the pacing of each part, as well as to ways students participate in learning.

### ***Building up***

As we have said, the teacher starts with the learners' own present knowledge, with their familiar environment. She starts with facts, low-level concepts, and concrete ideas and statements that are easily illustrated. She builds up to broader concepts and more abstract generalizations, covering wider perspectives, until she has led the students to a peak of understanding from which they can survey all the concepts and their relationships, laid out like a map before them.

But the path of the learners and of the teacher are different in this respect: the teacher has been there before and knows the way. In fact, in planning her teaching, she works 'downwards'. She starts with the most abstract concepts and the broadest generalizations that she hopes the learners will eventually reach, and moves downwards, deciding which concepts they will need on the way, and which generalizations will make good halfway steps. Then she chooses a selection of suitable facts to study which will illustrate the ideas, and takes examples from the familiar environment to exemplify the concepts. Finally, she plans the learning activities that will introduce the students to the concepts and ideas.

The learners start off at the bottom of this 'ladder'. They experience the learning activities, they learn the facts, form the concepts, begin to draw suitable conclusions and slowly begin making general statements. Thus gradually, through the course, they work upwards through a long series of ever more abstract concepts and generalizations, until they achieve the comprehension of the broad concept.

**Table 2.1** Teaching and learning the process for industrialization

↑ Learners moves from own concrete experiences to abstract conceptual understanding  Learner begins here	<b>Abstract concept</b> Industrialization  Urbanization	<b>High-level generalization</b> Industrialization requires previous capital accumulation Urbanization leads to a more complex society with a more highly differentiated division of labour, etc .	Teacher begins here  ↓ Teachers must translate learners' abstract understanding into ideas that they can relate to concretely
	<b>Concrete concepts</b> Industry Capital Specialization, etc.	<b>Low-level generalization</b> Industries are usually found in towns Industries provide wage employment Workers in modern industry are more highly specialized, etc .	
	<b>Factual content</b> Studies of currently developing countries, i.e. China, Kenya, Tanzania, South Africa Historical accounts of industrial revolutions in UK, USSR Studies of own country; statistical data; maps, plans Information about particular local industries		
	<b>Learning activities</b> Reading stories and textbooks Referring to newspapers, government publications, television, films Listening to teachers or others, e.g. workers Carrying out productive, co-operative projects Studying tables of data Visiting factories		
	<b>Learners' previous experience</b> Earlier school knowledge Knowledge of own community and surroundings Facts picked up from other sources Work experience (?)		

**Note:** Obviously, this is not a complete list of concepts and generalizations that can be learnt under this topic. They are some examples to show how you can think about and plan for concept-based learning.

Finally they understand where the teacher has been taking them. It is often a good idea to give the learners a rough outline of the ground they will cover, showing them where they will be going. But they cannot start their learning at the top; they always need to climb the 'ladder' themselves.

## Pacing

The teacher has to ensure that each stage is understood before learners go on to the next stage .

- *Internalizing new knowledge.* Starting from a familiar example, or from some real or simulated experience, the teacher will add new facts, introduce new concepts, or give a new, more technical name to some familiar phenomenon. Then she must ensure the learners have taken in (assimilated) this new knowledge and, if necessary, reorganize (accommodate) their old knowledge to fit it.

For example, vague knowledge about car factories and gold mines, together with old memories of the steam engine, might now be reorganized and fitted together as examples of 'industrial processes'. This is an absolutely crucial stage. The process of internalizing knowledge takes place *in the learners*, not in the teacher. But she has to help this process. She must pause, and give time to the learners to carry it out.

- *Applying new knowledge.* The teacher must then check to see how far the learners have really internalized the new knowledge and made it their own, how far they 'understand' it. The only real proof of understanding is whether they can *apply* it: by producing it in a new form, such as a statement in their own words, a new pictorial or diagrammatic representation, or by giving a new example, or by applying it to a *new context*. For example the question, 'If we had industries in our village, what difference would they make?' tests understanding of the concepts

One way of organizing one's teaching so that learners will make systematic conceptual progress is to use the sort of 'progress maps' that have been developed for the various learning areas by the Gauteng Institute for Curriculum Development (GICD) (phone: (011) 728 7068). These 'map out' learning pathways that take learners from simple or familiar facts and concepts, to more complex conceptual understanding and higher-level operations that learners should be able to perform using those concepts. Progress maps (which schools can develop themselves for specific purposes) are a way of systematically **building** learners' conceptual development and avoiding haphazard teaching.

of industrialization. Time spent on this is well worth it: if basic concepts and ideas are well understood, the learners will then learn the next stage more rapidly.

### **Participation in learning: doing it themselves**

The teacher should encourage the learners to become active partners in the learning process. Having presented them with suitable factual content, and directed their attention to relevant experiences and examples, she should make them draw their own conclusions, and encourage them to formulate their own generalizations at each stage.

The learners may draw different conclusions from the ones the teacher first had in mind; this is all to the good. Teacher and learners can test these against the evidence together. If the learners have made reasonable statements, the teacher should accept these and then encourage them to look still further.

Learners may not use precise language at first; they may not even know the right words. Yet they may be showing understanding in spite of this. They can be guided *gradually* to use the correct words and concepts. To express their own ideas is the first and most important step. To encourage this, you should construct your teaching like a spiral. Learners should keep meeting the most important concepts again and again, in new and more abstract forms. For example, 'industrialization' will appear:

- in different countries;
- in different historical time (the industrial revolution, current economic plans, etc.);
- as a form of production;
- as a strategy for development.

Each time they meet it, the learners' understanding of industrialization should widen and deepen, until they can handle it at an abstract level. Instead of just describing it, they should be able to write an essay on 'How industry can help a country increase its wealth', or 'How the process of industrialization will change people's ways of living'. Provided the main concepts are understood, and the learners have learnt through study of some facts and real examples to draw relevant generalizations and explain relationships, they will not only be able to pass the exam, but will also be able to participate in the process of 'developing' their country.

# What have we learnt in Section Two?

## 2.5

### Key learning points

#### **About new methods of teaching**

- Outcomes-based education is new to schools in South Africa. But it isn't new in other parts of the world, or in business and industry. Good resource-based OBE is part of a 'family' of teaching methods that includes role-plays, simulation games, problem-based learning, and experiential learning.
- These methodologies all assume people learn best when they are interested in what they are learning, actively involved in their learning, and where learning is linked to life.
- This suggests that, as teachers, we should aim to:
  - Make learning fun: use games (such as simulations and role-plays), or build learning by using puzzles and problems.
  - Ensure that learners understand why they are learning something: build new and abstract knowledge on concrete learner experience, and then demonstrate how new knowledge can be used practically.
  - Cut back on teacher-talk and increase independent and group study by learners.
  - Design learning programmes around media resources: this ensures that learners are active and that they practise reading and debating.
  - Design materials that interest learners and activate a questioning and critical attitude to learning.



You should have spent at least two hours working on Section 2.4. Make sure you understand it before continuing.

#### **About the educational use of popular media resources**

- Many things can become *learning* resources: anything from a puddle in the playground to the local bus timetable. The limit is our imagination and our *resourcefulness*.
- We should use a wider variety of resources to activate learner interest, and to deepen their knowledge of abstract and difficult concepts. But we must realize that resources only become educational through the thoughtful intervention of a teacher.
- Planning learning processes is a very important skill in resource-based OBE. In particular, this must focus on leading a learner from the interest activated by an initial resource through to deeper conceptual understanding.
- Aimless, 'busy' activity that doesn't result in learning is a danger in resource-based OBE: ensure that media resources and activities get learners to think and reason.
- Popular media resources are particularly good at:
  - activating learners' experience and contextualizing school learning;
  - providing learners with experiences they could never have: travelling back in time, visiting exotic worlds, listening to famous figures talk;
  - evoking learners' imaginations;
  - improving learners' ability to use language: reading, listening, second-guessing, modelling talk;
  - improving learners' critical literacy;
  - updating textbook content.

### About teaching conceptually

- Move *from* the fun and activity of media-based and activity-based teaching to developing higher-order conceptual understanding of your learning area.
- Conceptual understanding, rather than memorization of facts, is vital in a world where facts change rapidly and where the aim of teaching is the application of knowledge.
- Focus on developing some key concepts. The concepts should:
  - enable learners to categorize and organize large amounts of information;
  - enable learners to generalize and use this ability to solve problems;
  - build from learner experience and facts. But facts must only be taught in order to understand the concept, not to be memorized.



This is an important activity and will take some time to complete. Set aside at least five hours to do it. This could be spread over two or three days. Include the lesson programme developed in your resource file. You may want to copy your fellow student's lesson programme and file that too. We will not comment immediately on this activity. Instead, work through Sections Three, Four, Five and Six and then see whether you can assess it yourself.

### A summative assessment activity

We'd like you to do three linked activities at this point:

- a** Re-work the 'checklist' of criteria for good resource-based teaching that you copied down earlier (see pages 16 and 17). Add any new ideas that you have learnt about since then. This 'checklist' should act as a summary of key learning points.
- b** Choose a key concept in the learning area you teach. Then develop a programme of activities using media resources to teach this concept. Use your checklist to ensure that you include the important ideas that Nomsa, John Aitchison, and Education with Production (in Section 2.4) have provided.
- c** Swap your learning programme with a fellow student or teacher. Assess each other's programmes and integrate any ideas you learn from your fellow teacher's programme into your own.