



A short introduction to

Educational Programming for South African Broadcasters

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A brief overview of the outcomes and content of a training course on Educational Radio,
Television and Digital Media

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Preface

Much talking does not make you a leader.-African Proverb

In other words: focus on action, and not words. Do simple things, and you will achieve more than talking complicated things.

This was expressed even better in the words of a simple monk living in Ockham in the Surrey countryside of England, long before Western civilisation even thought of, in fact 700 years ago.

His name was William, and he devoted his life to the difficult problems of life. Because they were so difficult, he approached them with simplicity. In the words of his everyday Latin, he pronounced, “Entia non sunt multiplicanda praeter necessitatem.”

And this is how Ockham’s Razor came into the world. “Things must not be made more difficult or complex than they really are.”

Regrettably, the wisdom of William and his counterparts in many other parts of the world are nowadays forgotten. For in today’s Westernised world, respect is paid to those people who use big words and academic phrases. The ones who make things look more complex than they really are.

People like William tend to smash pedestals on which experts stand.

This book is all about simplicity, and what simple William of Ockham proposed.

Or

"Keep it short and simple!"

Simple thinking means simple language.

Hence I will use this symbol throughout the sections, and to constantly remind us not to ever make things more complex than they really are.



Part 1 Broadcast education

1

Education in Broadcasting

Too often people write about educational programmes, and in fact, education in general, as if it is something very complicated.

It isn't. If you are reading this, you are educated. You have had an education. Therefore you know what it's like to be educated.

It stands to reason that you know what education is all about, and how to do it yourself.

But you don't; because you think you don't. And you think you don't because certain people tell you that you don't. And these are the people who don't like simplicity.

Because of this, there's a lot of confusion; and you have now forgotten what education is all about.

I am now going to show you, just how much you already know.

The case for educational programming on TV and on radio.

There is nothing easier to sell African audiences than education. For centuries Africans were made to feel inferior and uneducated. To this very day, they will strive for education at any cost.

Public broadcasters use radio extensively for education, especially to complement school teaching, notably in Botswana and Kenya.

The British Open University programmes are as cheap as they come, just one camera facing a lecturer. They are still staple TV in diet throughout Africa. Broadcasters in many countries still use Open University as late night programming.

Pre-school programming is home-made in almost all African countries. Public broadcasters tend not to import children's programming if they can avoid it. They prefer to make their own, in the own language and culture. Africans are jealous of the upbringing of their own children.

Education, of course, means what you want it to mean. Is the News educational or just information? Is frivolous lifestyle programming educational – after all doesn't it teach us to have a life with which we can be proud? Some broadcasters even go so far as to claim that the social message aspects of soap operas are educational. However, they're probably right, as we will see.

Educational TV for Grades 11 and 12, on a 24-hour basis has even proved profitable in South Africa.

For many years, Australia with its sparse population in semi desert areas, used radio to take school children right up to matric.

It's easier to reach millions of people on radio and television than to call them into classrooms all over the very large countries in Africa. We are a very large continent. – South Africa alone is twice the area of France.

But, despite all this, the first point remains the most important: The programming that is easiest to sell to an African is educational programming.

Perceptions of Education

South Africans in particular have perceptions regarding education. Without judging whether these perceptions are justified, or even true, let's accept that to any person, their perception is reality.

So how do South Africans see education?

- Most are well aware that our primary and secondary education is of a low standard. The country is awash with immigrants from Zimbabwe, Zambia and other Southern African countries, and it is noticeable to most people that the standard of literacy and education of immigrants is higher than that of South Africans. This gives people the first point of comparison.
- People are not taken in with a pass mark of 40%. Everyone knows that it doesn't matter about the 40% you know, but rather about the 60% you don't know. Every year, school learners read about the many matriculants who passed with 6 or 7 "A" results. They are very aware that their own "E" results count for nothing.
- Secondary school learners have personal experience that 25% of South Africans are unemployed, and that the same percentage seems to apply to the matriculants around them.
- This gives rise to the belief, that you need a qualification, and that nothing is good enough except a university degree. BUT, their matric marks do not qualify them for university entrance. So what's the point of anything? Hence the high percentage of "discouraged unemployed".
- There is also, and the reasons are not clear, a culture of non-reading. When she was Minister of Basic Education, Naledi Pandor referred to it as, not "illiteracy", but "aliteracy" – too lazy to read.
- Of course, why read when there is so much visual information? It is estimated that 60% of South Africans get their current affairs information from television. On TV News, no item is longer than a minute, and excluding ads, stings and bumpers, there are rarely more than 18 minutes of news in any broadcast – all highly editorialised. "Information" includes lifestyle, popular culture, sport and local current affairs of all kinds. It becomes more complex when you look at which social media South Africans use, and the nature of each medium. (see below)
- Young South Africans are under the illusion that the Internet is a complete source of immediate knowledge. They are rarely taught to distinguish between good information and that of cranks. There is negligible teaching in researching for quality information and opinion.

And yet, the true status of education in South Africa is not known by most people. Because of the myth that you need a degree to get a job, people are unaware that:

1. Only about 2.5% of South Africans have a degree.
2. Only 7% have any post-matric qualification
3. There are currently 1-million students registered at South Africa's universities. The graduation rate among undergraduate students in South Africa's 23 public universities is a mere 15 percent.
4. The graduation rate for Master's students is 20 percent and for doctoral students 12 percent.¹

¹ IOL. 13 June 2013. Nontobeko Mtshali.

YouTube has an active user base of 7,2-million South Africans, making it second only to Facebook's 11,8-million.

Instagram has 680 000 active.

Twitter's is growing at 6,6-million users. The professional network LinkedIn has 3,8-million users in South Africa.

In short, there is every reason for educational television, if done well, and based on sound educational principles, to be extremely popular.

Purpose of broadcasting

But useful as this may be, there is something far more important about broadcasting, and that is why we do it in the first place.

The Three-tier broadcasting system, is based on the Constitution.² It allows for public, commercial and community broadcasters.

To make it simple therefore, this three tier framework makes it clear that there can be three objectives in broadcasting:

Tier	Purpose
Public	Public mandate
Commercial	Profit
Community	Community development

Popular theory also has it that all three tiers of broadcasters use three types of styles of programming to attract audiences: Entertainment, Information and Education.

1. The public broadcaster (SABC) has a public mandate for public service, but is also mandated to support itself financially. So it has two purposes: Mandate and commercial. It also goes into community development, as that is part of its mandate
2. Commercial broadcasters also have mandated local content quotas as requirements for their licenses, so they too have a public as well as commercial purpose. They too intrude on the community development sphere when it makes money.
3. The community broadcasters have a mandate, from their communities, but also have to make money. They too drift around all three purposes.

Entertainment - is a style where the broadcaster changes the world, and uses glamour to give the audience pleasure.

Information - is a style where the broadcaster presents information to the audience to give the audience insight.

Education - is a style where the broadcaster presents educational material for the learning achievement of the audience.

All three of these styles that provide glamour, insight and learning, are very satisfying to audience.

- Entertainment helps them to relax, escape and develop fantasies.

² Act 108 of 1995

- Information helps them reduce their insecurity and stress by being able to make more informed decisions.
- Education helps them achieve self-fulfilment, and actualisation to achieve their potential.

All three, if done properly are exciting for people.

All three can use each other to achieve their objectives.

- Entertainment can use information and education to attract audiences, quiz shows, travel, lifestyle, culture etc.
- Information can use entertainment, such as tabloid news.
- Education can use entertainment, such as in children's programming.

Entertainment makes the outside world look like a much nicer place than your inside world.

Edu-tainment

What is "edutainment"? This is pure jargon commonly used by people who cannot explain it, except by saying that "you educated through

entertainment". What this ignores is that it is not the writer who makes it entertainment, but rather the viewer who receives it and interprets it as entertaining.

But, what does "entertaining" mean?

Entertainment is much more than offering diversion, relaxation or taking someone's mind off their problems. Entertainment helps people understand themselves.

Entertainment is storytelling so that the audience learns something. A soccer match tells a story. A quiz show tells a story. A song tells a story. Individual people get out of each story, what is meaningful to them. The more universal the story, the more it will appeal to many people.

The audience is very complex and a professional producer should be an expert on the subject. The subject is not only about psychology or sociology. It's a mixture of many, many disciplines and involves culture, communications and economics, marketing, consumer behaviour and audience psychology.

Some rules of people

We need to reconcile styles with the emotional needs of people. Here are some basic rules of people:

- People want to feel in control of their lives.
- People want to know why they should do something rather than how to do it.
- People accept recognition, avoid accountability.
- People want to be part of something larger than themselves.
- People want to be treated as unique or special.
- People do things for their own reasons, not ours!
- People seek pleasure
- People do not want to be alone, or in pain.
- People make decisions based on emotion, and justify with facts.
- People are curious

- People do not change their minds; they make new decisions based on new information.
- People do not want to die

Since these are what people like to do, it gives us plenty of guidance as to why they like learning.

People like to learn. Achievement and self-realisation is very motivating. Motivation is very pleasurable.

People need to learn. It's the pinnacle of Maslow's Hierarchy of needs.

Remember it?

Maslow revisited

In his Hierarchy of Needs, Maslow says that people have needs, and that they attend to needs according to certain steps. These are not degrees of importance, but rather that one does not go onto the next step until you have satisfied the needs of the step below.

An average day in the life of anyone illustrates Maslow's proposition.

You get up in the morning, relieve yourself, and refresh yourself with the liquid you have just lost. You eat to stop hunger.

This satisfies your physiological needs, that is, they meet the needs of your physical body.

Only once these are satisfied, will you begin to think of your safety needs, clothing to protect you. Finally you lock the front door. Then you take a car, taxi or bus to work that you know is safe.

Your safety needs are to protect your body and possessions. You will notice that you only attend to these after you have satisfied your physiological needs.

The first thing you do when you get to work, is greet people, and talk about last night and what happened earlier today. People need people. These are your social needs.

Finally everyone gets down to the job of doing a good job. You want to do a good job; no one wants to do a job badly. Why? Because you want to feel good in your own eyes and in the eyes of others.

These are your esteem needs. They are very important, because you need desperately to seek the approval of, not only others, but also yourself.

You will never try to improve yourself unless you feel good about yourself. This is why your self-actualisation needs come last—you can only tackle them once you have satisfied all your other needs.

Self-actualisation and learning may need all the other needs to be fulfilled before it becomes a need, BUT

What if the same programme could serve to fulfil social and esteem needs at the same time? Then you wouldn't need to wait for people to fulfil their social and esteem needs before they want to learn.

There's a clue here for educational broadcasting.

Usefulness

People also value television for its usefulness. Amongst their many ways of valuing media so that they can appreciate it, they subconsciously also give it points on how useful it is to them.

It's useful to see audience tastes in terms of the Uses and Gratifications Theory. This theory says that people consume television because of its emotional usefulness.

Entertainment: People find the programmes give them pleasure, allowing them to be distracted from the problems of life. These programmes are labelled as being 'escapist'.

Social interaction: Programmes give us something to talk about. No matter how inarticulate or socially reserved we may be, we will always find a point of contact with other people on the subject of "last night's TV."

Personal identity: Programmes allow us to identify with people we admire. We like programmes that reinforce our opinions. We also like programmes that reflect where and how we live.

Information: Ranging from the weather or the lives of celebrities, we rely on television for our information, which makes us feel secure.

We must qualify the last statement, as it would appear to go against what we will see further on, that "information" on its own is not very developmental. People perceive that information gives them a sense of security.

South Africans get their news from the electronic media: over 60% use TV as their sole source of news.³

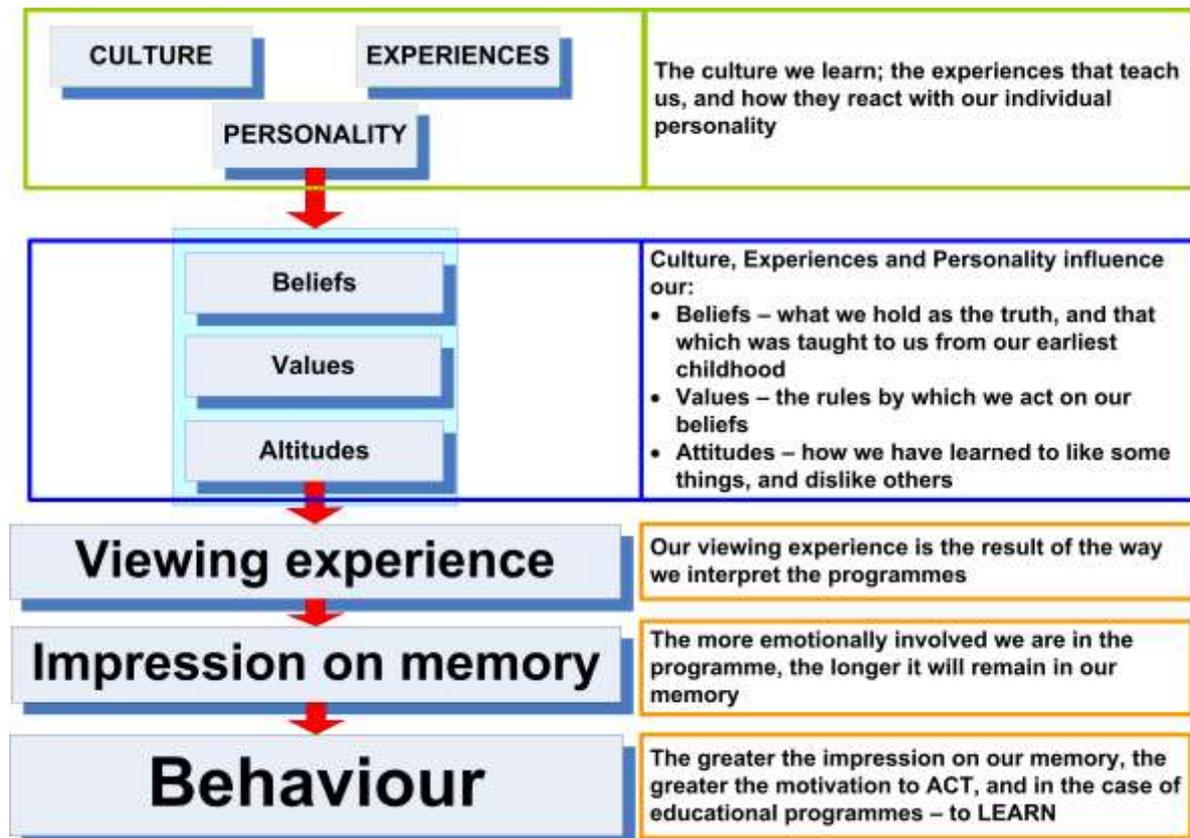
2

What is education?

This is really simple. Education is learning, which is what we do from the moment we are born. We never stop learning until the day we die.

We learn just about everything, except that which is really built into our genes and DNA (which no scientists really know much about). These include personality, emotions and certain mental predispositions, such as inexplicable talents and emotional extremes such as depression.

³ Open Society Monitoring Index (OSMI)



We learn our beliefs, our values and our attitudes. Our beliefs and values are almost impossible to “unlearn”. Our culture is also very “sticky”, - difficult to forget and discard.

Our attitudes are very difficult to unlearn. Attitudes are predispositions – things that we learn to emotionally like and dislike. Stereotyping, prejudice and loyalty are all attitudes.

Opinions, on the other hand, which we also learn, we can “unlearn” almost immediately.

We learn our knowledge, our skills, our reasoning. We even learn most of our instincts. We learn the most important feelings that bind us to the media: Hope and Fear.

We all go through life-long learning, although in different ways.

Culturally, people have come to associate education with social achievement, and whereas they say that “education is necessary”, what they mean is “I believe that formal education will get me somewhere in life because people can’t learn by themselves.” We know this is rubbish and most people are unconsciously self-taught.

But the perception that education is only effective when it’s formal, is an attitude, and it’s not our job to change attitudes.

If that’s the way they feel, and they want formal education, then we give it to them.

3

Educational programming

Broadcasting is only about satisfying the wants and needs of the audience, and if the audience wants educational programming, then they’ll get it.

People who say that they never watch educational programming because they prefer movies and sport, are actually learning a lot from the movies and sport they watch, even if they are not aware of it.

But programming that is marketed as “educational programming” is for those people who want it.

And there’s plenty of them.

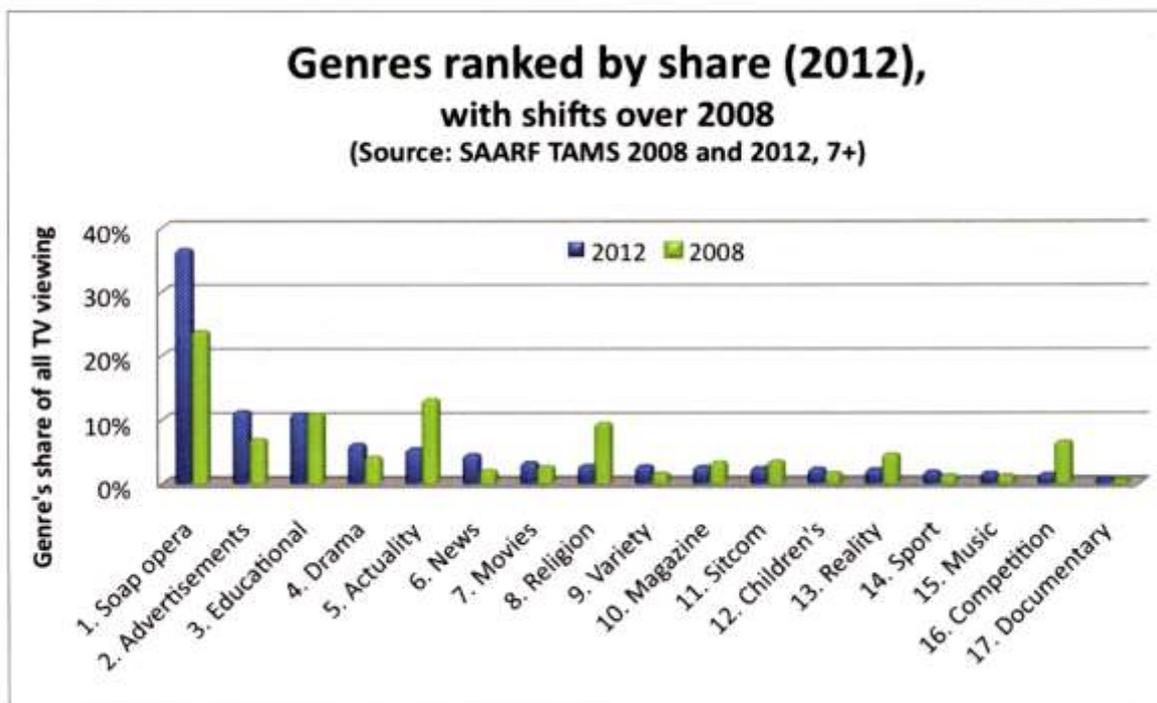
Megan Chronis writing in The Media ⁴ says this about educational programmes, which she ranks as third in the top five in their share of total TV viewing. (By the way, Soaps come first, followed by Advertisements).

Feeding South Africans' need to learn and improve their understanding about life, the educational genre commanded 11% of total TV-viewing share in 2012. Average audiences numbered almost 210 000 per programme flighted.

The top-ranked programme for 2012 was SABC I's 'Relate', which offers "educational healing through counselling"; its average AR per programme was a sizable 6.8, with an average audience of 2,441-million.

The educational Genre Audience, she analyses as:

- 55.3% female
- 71.7% LSM 5-7
- 28.3% aged 50+
- 36.5% have some high school.



So whatever programmes the broadcasters describe as “educational”, and that the audience perceive as “educational” are very, very popular: more than drama.

⁴ The Media August 2103

Part 2 How education works

1

How does education work?

If you think about it, no company or institution needs “Knowledge Management”. You do not need to spend, and waste, money on managing nothing. For, in fact, “Knowledge”, is the lowest level of intellectual value.

Neither is “Experience” of any value.

Example of the computer-user

A person who uses a computer finds out that every time she goes to a particular web page, it doesn't update, whereas she knows the page should have updated. She's stuck. So she asks a manager in IT, and the IT Manager says, “Press F5”. So she presses F5, and the page changes.

Has she gained a skill? What the IT Manager did not do, is to explain to the computer user that what had in fact happened that the computer, to make things quicker for her, was recording her web page in a cache. The only way she could stop the browser from reloading the cached page, was to press F5 which would refresh the browser.

But the IT Manager didn't explain that. Probably because her query was a nuisance, and she had other things on her mind at the time.

Furthermore, our computer user didn't ask, “Why?”, because she had find an easy “get out” that didn't involve learning or even thinking.

But, she never has a problem ever again, because every time the page appears to stick she presses F5. She doesn't know why, but she solves the problem by pressing F5.

When she has been pressing F5 for two years, she has two years' experience of pressing F5.

This begs two questions:

- Has she any knowledge?
- Has she any experience?

No. She is highly knowledgeable and experienced in pressing F5. She has no idea why she presses F5, or what it does. Neither does she know what to do if someone changes the keyboard layout from F5 to F6.

Example of a bricklayer

You can give a bricklayer the knowledge of how to lay bricks. “You lay out and level the string like this. Then you stick on the cement like this, and then place it on the row of bricks like this.”

But the guy has no insight into what bricks and cement actually do, how cement dries, and how it sticks. It is only when he knows the whole context; all the variables, that he will be able to deal with uneven surfaces, awkward corners, and all the other eventualities that cannot be foreseen.

It's not enough to KNOW. You also have to THINK.

So the words “Knowledge” and “Experience” must be clarified and understood.

A good place from which to start is precisely here:

- It doesn't help to manage institutional knowledge or experience when we don't know what they mean.

- It doesn't even help to define the two words (knowledge and experience), and using a definition does not help us to understand what the definitions mean.

2

Competence

If it doesn't help to *know*, or to just have *experience* in doing the same thing over and over again, then, what do we want?

The answer is in the word "Competence". We need people to be able to

- Do things,
- Do them well,
- Understand what they are doing
- Understand why they are doing it
- Have the motivation to want to do them better.
- Analysing how they can do things so that they can do them better.

That's the simple way of saying it. Knowledge Management practitioners put it in slightly more difficult "speak".

They will say, that just when it comes to *thinking* (not even *doing* or *feeling*), there are various levels at which we are becoming more and more competent.

The five levels are:

Knowledge

At this, the lowest level, we just "know". Like: "Press F5". Nothing else. We just know. It's data, noise, and in fact, all it is information. It has very little use whatsoever, except for things like "When you get to the robot, turn left." That's knowledge. It's not life-changing, and it doesn't do anything for society.

It gets a little bit better when we understand what we know.

Comprehension

This is the next level where we get to understand. It's at this level that we get the answer to the question, "Why"?

If Knowledge (or information, data, noise) is of so little value, then we can add value by understanding the reason

- Why it's there,
- Why it's important,
- Why it changes my life.

Application

When I KNOW and then understand what I know, I can now move to the next step and put that comprehension into action.

I can now *act*. I can *do*. I can *apply* that comprehension of the knowledge.

Now we are getting some value out, and for the first time in our journey through the thinking process, we are beginning to see some semblance of what we may call competence.

What do you want to be? A competent *Know-er*? A competent *Understand-er*? Or a competent *Do-er*?

Analysis

The next level of competency, will be when we can look at what we are doing with our understanding of knowledge, and break it down into simple little parts. This is where we look at why it is important, why it's essential to understand it, what the various actions, activities, parts, tools, operations consist of. Here we break it down into what resources are brought into the activity and what completed outputs we produce (systems analysis).

We gain a complete understanding of each and every aspect of the competency. Now we are really competent.

But there are still another two steps to go.

Evaluation

In this level we are able to make a judgement about whether the whole job, or all its parts, or any single one of its parts are good, satisfactory or bad. We have such confidence in our ability to analyse the job that we are now in a position to make a judgement call. If it's great - leave it alone. If there's just the slightest thing wrong, or even slightly inefficient, we can identify that area, and make a judgement on its status.

That empowers us for the last stage: being creative.

Creativity

Creativity is nothing more than doing something different with something we are expert at.

It's just the natural; progression from being so good at a job, that we can evaluate it.

On the basis of that evaluation, we can now do something different with it to make it better, and better until we get it perfect.

That's creativity. Just a matter of doing something different with what we already do very well.

Creativity is not some mystical God-given gift. To say "some people are born creative" is plain rubbish. It's just that some people have the motivation to work at something really hard. They want to practice for no other reason that they are interested in it. This is not just curiosity, it's an all-absorbing interest, they type of intense interest that we call "passion".

This simple progression fits into an overall framework, that we call "Learning Domains and Levels".

3

Domains and Levels

The example that we have been working through is just the "Thinking" domain. There are three domains to learning, and the three cover every aspect of our living and working. In order to work, and in fact, just to live, we have to DO things (even if it's just sitting back and thinking).

We have three ways in which we DO things. The head, heart and hands domains.

We learn through our head, heart and hands, and we do things through our head heart and hands.

But professionals don't like slang words like Head, Heart and Hands, so we refer to them more "professionally" as the Cognitive, Affective and Psychomotor Domains.



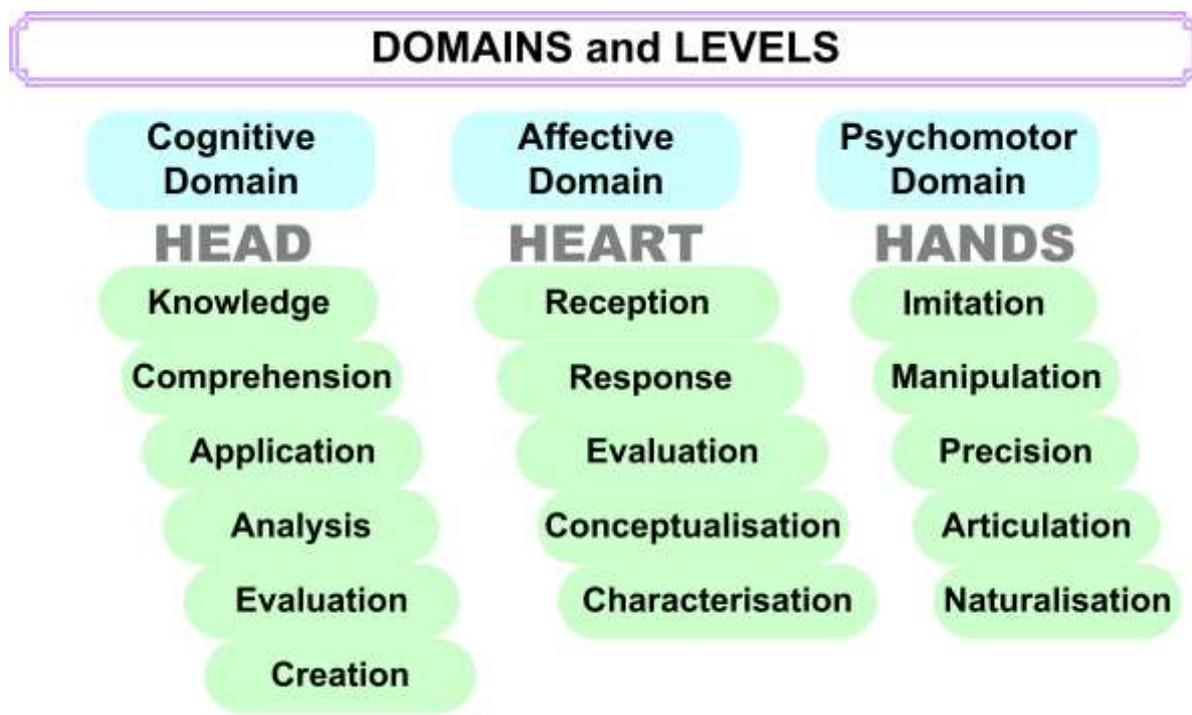
Put it another way.

- In the Cognitive Domain, we use our heads to think things out.
- In the Affective Domain, we use our emotions, and are affected by emotions, as to whether we want to do the work, whether we like doing the work, whether we want to do the work for the benefit of others. Or if we do the work resentfully just because we need the money. Emotions, feeling, play a very important part in our ability to do work well, with pleasure and in a state of high motivation.
- In the Psychomotor Domain we do things with our body – our feet, our hands, our voice, our body language. We fight, we run, we play, we sing and we dance.

That brings us to the Levels of these Domains.

We have already explored the levels in the Cognitive Domain (you recognise then in the chart below).

Notice that there are also levels in the Affective (Heart) and Psychomotor (Hands) Domains.



Cognitive Domain

In the Cognitive Domain, we think. We reason, we enquire and we arrive at conclusions. Once we have mastered our craft, we are in a position to be creative.

The basic level in the Cognitive Domain is that of just knowing. It means we *remember* and *can repeat* it. We can answer the question "What?" This level of Knowledge is of no use unless we understand; which takes us to the Comprehension level.

At the Comprehension Level, we place our knowledge in context and can answer the questions, "Why, When, Where and How?"

The next level is that of Application, in which we DO things. At this level we have the basic level of Competency. We are COMPETENT, we can *DO IT*.

Moving to the next level, Analysis, we pull things apart into their constituent elements – we ask, how did I do it, step by step? Why did I do it that way? What did I need to do it?

At the Evaluation level, we make a judgement. Did I do a good job, or not? Is there any way I can do it better, or in a different way, so that it can be used for other things?

After that, and ONLY after that, are we in a position to do something different with all that we have learned. Here is the level at which we can be creative. This is the Creation, or Creativity Level.

Affective Domain

For instance, in the Affective (heart or feeling domain), at the lowest level we are merely receptive. We don't feel much either way, we are willing to try and feel something about it. We are receptive.

The next stage is to be responsive. Now we respond, or feel back, we react with a feeling. Feelings range all the way from intense hatred to intense adoration. At this stage, we emotionally react to the situation.

In the next level we judge how we feel about it. We evaluate our emotions, and make a decision as to whether we like it or dislike it. We make an emotional judgement call.

If we develop intense positivity, we will come up with a concept of how we feel. If we don't like the job, we will be able to say why we don't like it. Or if we love it, we should be able to explain why.

The final level in the Affective Domain, is to "Live the feeling". The way we feel forms a whole character. We Characterise, and start to emotionally live the situation.

Psychomotor Domain

The Psychomotor Domain is that which deals with the hands. In fact, not just the hands - it deals with every aspect of our physical being.

Let's look at an example from something like "riding a bicycle."

At the lowest level of learning to ride a bike, we simply imitate - copy what we see another person doing. We copy and copy, until we can actually ride in a straight line, and keep balance.

Once we have managed to keep going, and balance, then we can move up. We start to manipulate - we turn corners, we start and we stop.

The next stage is where we start achieving precise riding, so precise that we avoid potholes and don't ride into trees. We can ride in the road between cars, and not be dangerous.

When we are expert at precision, we can then try something potentially dangerous, like some wheelies, riding on one wheel.

We call this articulation, because we are not doing it for the sake being brave, but in order to express something. It tells other people, “Just look at how good I am.” You articulate and make your creative riding “speak” to others.

The highest level of competency in the Psychomotor Domain is naturalisation. This is where your articulation is so great, that it looks so natural.

That’s when you do physical activities so well, that everyone thinks it must be the easiest thing in the world. Naturalisation in the Psychomotor Domain is used in dancing, acting, playing musical instruments.

When you combine *Creativity* in the Cognitive Domain, with *Characterisation* in the Affective Domain, and *Naturalisation* in the Psychomotor Domain, you end up with a performance on stage, or on the screen that has the audience screaming for more, and never, ever forgetting the experience.

4

Learning to do something

Educational programmes have to educate. People have to learn something. More than that, they have to learn how to DO something. You have to be absolutely clear that this “something” is something the audience needs to know how to do.

At the outset (although we’ll go into it in greater details further on), let’s make it clear that the audience has to learn to **do something**.

“But if the programme is to merely inform people on Human Rights, what are they expected to do?”

Good point, but go back to the levels in the Cognitive Domain. If the programme is meant merely to inform, then that information has to result in people being able to DO SOMETHING.

“Knowledge” in the Cognitive Domain is a standard scope of activity and outcomes. There are standard verbs that are used in the outcomes.

<p>1. Knowledge - remembering previously learned material. The skill may involve recall of a wide range of material, from specific facts to complete theories, but all that is required is the bringing to mind of the appropriate information. Knowledge represents the lowest level of learning outcomes in the Cognitive Domain.</p>	<p>Knowledge - enumerate, define, describe, identify, label, list, match, name, outline, recall, recite, recollect, relate, reproduce, select, state</p>
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Note that these verbs are rather mechanical and involve little more than remembering.

Do you want your audience merely to know their Constitutional Rights, or do you want your audience to understand them?

If you want to move up to the level of understanding, then you are at the level of Comprehension.

Here the scope and verbs used to describe the outcomes are at a higher level.

<p>2. Comprehension - the ability to grasp meaning of material. This skill may be shown by translating material from one form to another (words or numbers), by interpreting material (explaining or summarising), and by estimating future trends (predicting consequences or effects).</p>	<p>Comprehension - change, construct, convert, decode, defend, define, describe, distinguish, discriminate, estimate, explain, extend, generalise, give example, illustrate, infer, paraphrase, predict, restate, rewrite, solve, summarise</p>
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Those levels cover knowing (Knowledge), and understanding (Comprehension). Buy what is we want the viewer to DO something with it? Then that will take us to the level of DOING (Application).

<p>3. Application - the ability to use learned material in new and concrete situations. This may include the application of such things as rules, methods, concepts, principles, laws, and theories.</p>	<p>Application - apply, change, compute, demonstrate, develop, discover, dramatise, employ, illustrate, interpret, manipulate, modify, operate, organise, predict, prepare, produce, relate, solve, transfer, use</p>
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The decision you have to make, is: at which level within the Cognitive Domain do you wish to pitch the outcomes?

Yes there are protests to this statement, such as, "But we have this programme on civic rights, and it's only to inform them. How can we measure the success of the programme? It's not tangible or measureable."

That's not true. Everything in this world is measurable, and it doesn't have to cost the earth. And every programme can educate people to do something. If the programme is about civic rights, then to have any effect, then it has to educate/teach/train the audience to repeat to someone else what in the programme, and interest it properly. That's all they have to do.

"But how can we measure that?" comes the protest. Wait. It's coming up.

5

The process of education

Educational methods (pedagogical methodologies) depend on the age of a person.

People grow biologically in the same way all over the world.

The first theorist to research learning methods was a Swiss, Jean Piaget.

His work is accepted throughout the world, and has been validated in Africa ⁵.

Erik Homburger Erikson did work similar to Piaget.

Erik Homburger Erikson (1902 – 1994) was a German-born American developmental psychologist and psychoanalyst known for his theory on psychosocial development of human beings. He may be most famous for coining the phrase identity crisis. His son, Kai T. Erikson, is a noted American sociologist.

Although Erikson lacked even a bachelor's degree, he served as a professor at prominent institutions such as Harvard and Yale.

Jean Piaget (1896 – 1980) was a Swiss developmental psychologist and philosopher known for his epistemological studies with children. His theory of cognitive development and epistemological view are together called "genetic epistemology".

Piaget placed great importance on the education of children. As the Director of the International Bureau of Education, he declared in 1934 that "only education is capable of saving our societies from possible collapse, whether violent, or gradual."

Piaget created the International Center for Genetic Epistemology in Geneva in 1955 and directed it until his death in 1980.

If we merge their work, and take the best of each, we land up with a very useful guideline to the learning needs of each age group.

As people grow up, no matter where they come from, they follow the same progress, and within roughly the same time, of physical and biological development.

However, they also develop differently according to experiences, and these vary from culture to culture, and also from one person to another. When you put these together, you get emotional development. Since we cannot measure the individual development dynamics (experience and emotional), but we can measure and compare physiological development, we will use that to generalise about people and their educational needs.

⁵ Mwamwenda, TS. Educational Psychology. An African Perspective. 2004. Heinemann. Pages 103-125

Stage	My crisis	I ask myself	This is my main activity	I want to be able to	I want to learn	I am most influenced by
Infancy (Birth-1 year)	Trust vs. Mistrust If I find I cannot trust you, I will develop mistrust.	"Is my world predictable and supportive?"	I receive care	Trust people and the world around me.	The pleasure of bonding; what my senses can do; why things happen.	Mother
Toddlers (1-3 Years)	Autonomy vs. Shame & doubt If I am not allowed to try it myself, it will make me feel stupid.	"Can I do it by myself; or will I always need assistance?"	I imitate and copy what others do	Be proud of myself. And I want to be brave.	How to move and manipulate; Fantasy play; to speak; to control myself	Parents
Tykes (3-5 Years)	Initiative vs. Guilt If I can't try things that are new and different, I will feel inadequate.	"Am I good or am I bad?"	I identify with others	Start things and have fun learning about things	What my sex-role is; the difference between right and wrong; Self-esteem; Group play; What's in it for me.	Basic family
Tweens (6-10 Years)	Industry vs. Inferiority If I can't show that I can do things, I will feel useless.	"Am I successful at what I do or am I worthless?"	I learn	Learn skills so that I can do things well, then I can enjoy the achievement.	Friendship; skills; how to value myself; how to play and work in teams.	School
Teens (11-18 Years)	Identity vs. Role Confusion If I am not sure who I am, I will not feel that I fit in.	"Who am I? Where am I going in life?"	I follow my peer group; cliques	Be part of a group, and accepted by them	What my body is all about; why I feel things; love and relationships; membership in peer group; sexual relationships	Peer groups
Young adults (18-34 years)	Intimacy vs. isolation If I cannot love and be loved, I will fall into loneliness.	"How can I be seen to achieve?"	I give care	Form close relationships and share with others	Stable relationships; Child bearing; Work etc.	Marital partner; friends.
Middle aged (35-55 Years)	Productivity vs. Stagnation If I cannot produce results, I will come to a standstill	"Will I produce something of value with my life?"	I create	Work for and bring up my children, and be useful to others.	How to Nurture close relationships; How to manage my career and household; Parenting	Workplace - community & family
Elderly (55 years-Death)	Self-assurance vs. despair If I am not proud of what I have achieved, I will fall into depression.	"What did I do; and what do I still have to do?"	I reflect	Feel fulfilled about life; a sense of unity with self and others	How to develop my mind; Redirect my energy to new roles and activities; Develop a point of view about death	Humankind ("My-kind").

6

The difference between adult and children's learning

The primary misconception that most of us make is to assume that education is what we do at school. This is an error we make because we are closer to school than any other form of education. It was also more impactful on our lives than any other educational activity.

Very few of us are familiar with University or other forms of Higher Education. At we saw earlier, only 8% of the population, with have an education that is higher than matric. Less than 3% have a degree.

Because so few people have any higher education, we have a tendency to look upon education as how we learn at school.

Adults do not learn like children. They have complexly different agendas and needs. Adult education needs a complexly different approach.

This table summarises the basic differences between children and adults with reference to how they learn, and consequently how they are educated.⁶

CHILD LEARNERS	ADULT LEARNERS
At a similar stage of development	At very varied stages of development
Have similar learning histories	Have different learning histories
Faster and more energetic learners, greater similarity in pace within a class	Varied learning paces, but often slower than children
More resilient to criticism	Very sensitive to criticism and embarrassment
Have similar values	Have different values
Have few responsibilities so more time learning	Have many responsibilities to less time for learning
Have similar motivations for learning (usually forced to attend)	Have different motivations for learning and often attend voluntarily
Spend many hours a day learning in a formal school setting	Learn on the job, at home, in informal settings, through unions and professional associations
Take instructions more easily	Not always open to suggestions
Personalities are still developing	Personalities are more set
Little experience and knowledge of the world	Wide experience and knowledge of the world
Less self-disciplined and more dependent on teacher	Sometimes more self-disciplined and potentially more independent as learners
Less easily discouraged	More easily discouraged -
Less concerned about purpose of learning	Learning must be relevant to the adult learner's own needs
Health generally good	Health declines with age and affects learning e.g. eyesight and hearing
Are outspoken and curious	Often shy, cautious or modest and learn less as a result
Ability to learn is at its peak	Intelligence does not decline, but in new learning situations, learning is hampered but lower motivation, self-esteem and declining health
Accept what the learning is offered by educator	More selective about what they want to learn
Behaviour can be more easily changed	Behaviours are difficult to change
No interference of old habit and attitudes with learning	Old learning habits and attitudes interfere with learning
Accept what they are taught more readily, reasoning skills still developing	More likely to be critical as thinkers and greater observation and reasoning
Better recent memory	Shorter recent memory

⁶ Lawson (1998), Indabawa (2006), Fasokun (2005)

7

How adults learn

Although adult education theorists differ on just how different adults are from children, most embrace the andragogical theory of adult learning.

During the 1960s, European adult educators coined the term “andragogy” to provide a label for a growing body of knowledge and technology in regard to adult learning.

The following assumptions underlie the andragogical model of learning⁷.

Assumption One

The adult learner is self-directed. Adult learners want to take responsibility for their own lives, including planning, implementing, and evaluating their learning activities.

This principle is often misinterpreted. Learner self-directedness does not mean that the trainer abdicates responsibility for the plan or approach.

Assumption Two

Each of us brings to a learning situation a wealth of experiences that provide a basis for new learning as well as a resource to share with others. These experiences may be good or bad, but they will impact the way in which an employee approaches a new learning experience.

Because people base their learning on past experiences, the new information must be assimilated.

Assumption Three

Adults are ready to learn when they perceive a need to know or do something in order to perform more effectively in some aspect of their lives. The days of abstract theories and concepts are over for most adults.

They want the learning experience to be practical and realistic, problem-centred rather than subject-centred.

Assumption Four

Adults want immediate, real-world applications. They want the skills and knowledge to help them solve problems or complete tasks.

People are motivated to learn when they see relevance to their real lives and are able to apply what they have learned as quickly as possible. Therefore, learning activities must be clearly relevant to the immediate needs of the adult.

Assumption Five

Adults are motivated to learn because of internal factors such as self-esteem, desire for recognition, natural curiosity, and innate love of learning, better quality of life, greater self-confidence or the opportunity to self-actualize.

Motivating factors

At least six factors serve as sources of motivation for adult learning:

Social relationships:

To make new friends, to meet a need for associations and friendships.

⁷ Lawson (1998)

External expectations:

To comply with instructions from someone else; to fulfil the expectations or recommendations of someone with formal authority.

Social welfare:

To improve ability to serve mankind, prepare for service to the community, and improve ability to participate in community work.

Personal advancement:

To achieve higher status in a job, secure professional advancement, and stay abreast of competitors.

Escape/Stimulation:

To relieve boredom, provide a break in the routine of home or work, and provide a contrast to other exacting details of life.

Cognitive interest:

To learn for the sake of learning, seek knowledge for its own sake, and to satisfy an inquiring mind.⁸

Part 3 The Audience

1

The target audiences for educational TV

If we go back to the Piaget/Erikson chart, we see the target audiences clearly laid out.

Education in South Africa is formulated by the South African Qualifications Authority (SAQA) which incorporates all education within a framework called the National Qualifications Framework.

If there is any objection “But this is school and classroom education, and has nothing to do with broadcast education”, then the response is:

You can be educated by means of the classroom, broadcast, Internet or even correspondence. Education is education. The medium is secondary. Educational principles hold sway regardless of the medium. In South Africa, as in all countries, the state organisational framework gives education coherence. Broadcast is not exempt.

The matrix looks like this, showing the current and the future structures:

⁸ Lieb, Stephen. Principles of Adult Learning. South Mountain Community College. VISION, 1991

NQF			
Levels			Levels
10	Doctoral degrees		10
9	Masters degrees		9
8	Honours		8
7	Bachelors degrees		7
6	Diploma		6
5	Certificate	NCV 5	5
4	Matric	NCV 4	4
3	Grade 11	NCV 3	3
2	Grade 10	NCV 2	2
1	Grade 9		1

This clearly shows the progression from school education to FET, CHE and QCTO. Although there are different routes (Higher Education, Further Education and Training and QCTO), they are however roughly attached to age groups.

As such, the target is always first of all the level and then the age group.

However, that is not all:

There are other considerations, most of which are not negotiable:

1. Level
2. Age
3. Language
4. Prior learning
5. Literacy
6. Attitude

Level

If your audience (learners) are already at a specific level in any domain in a specific subject, you should be moving to the next level. If the subject-matter is new to them, then you start at the lowest level.

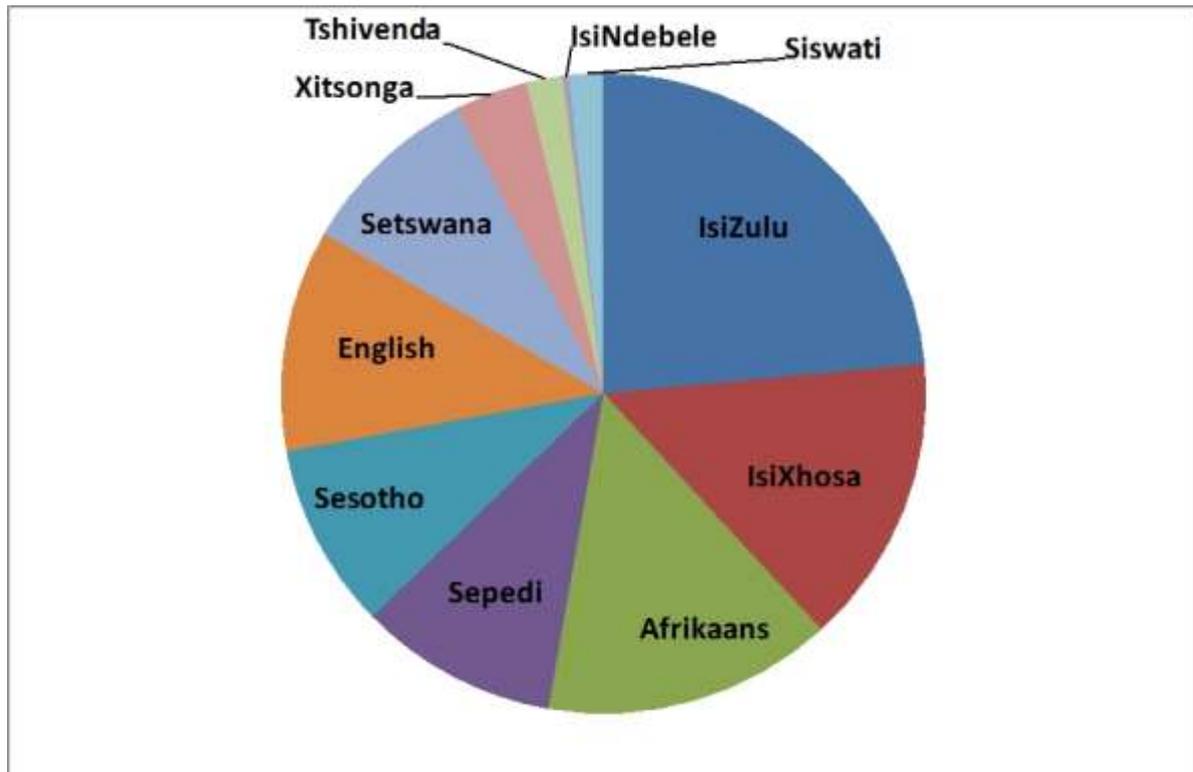
Age

The chart above shows clearly that different age groups, (biologically and not culturally) have different approaches to what they need to learn depending on, as Erikson says, their “crisis”.

Language

Language is NOT negotiable. People cannot watch television or listen to the radio in a language they cannot understand.

There are also considerations in South Africa that affect language medium. Only 11% of South Africans have English as their home language, and only 1% of Blacks speak English as their first language.



However, to a slight contradiction, people often like educational programming in a language that is their second or third language as it helps them with fluency in that language.

Prior learning

Otherwise known as “Learning assumed to be in place”, this is important as you want people to learn new things. If you are targeting an audience, you will need to research what their average educational level is already.

Literacy

People can be very articulate in their use of language orally, but they could, at the same time, also range from semi-literate to literate. A South African could be quite fluent in English as a second language, and yet have enormous difficulties reading and writing. This poses problems for any on-screen writing, subtitling, captions and boards

Attitude

There are big differences between those who take education seriously to the point of deep concentration, and those who want useful content that is easy and entraining to absorb. Educational programming does not have to be “edutainment” whatever that means. Some people who use that word are not able to define entertainment, or explain the uses of entertainment.

2

The subject matter for educational TV

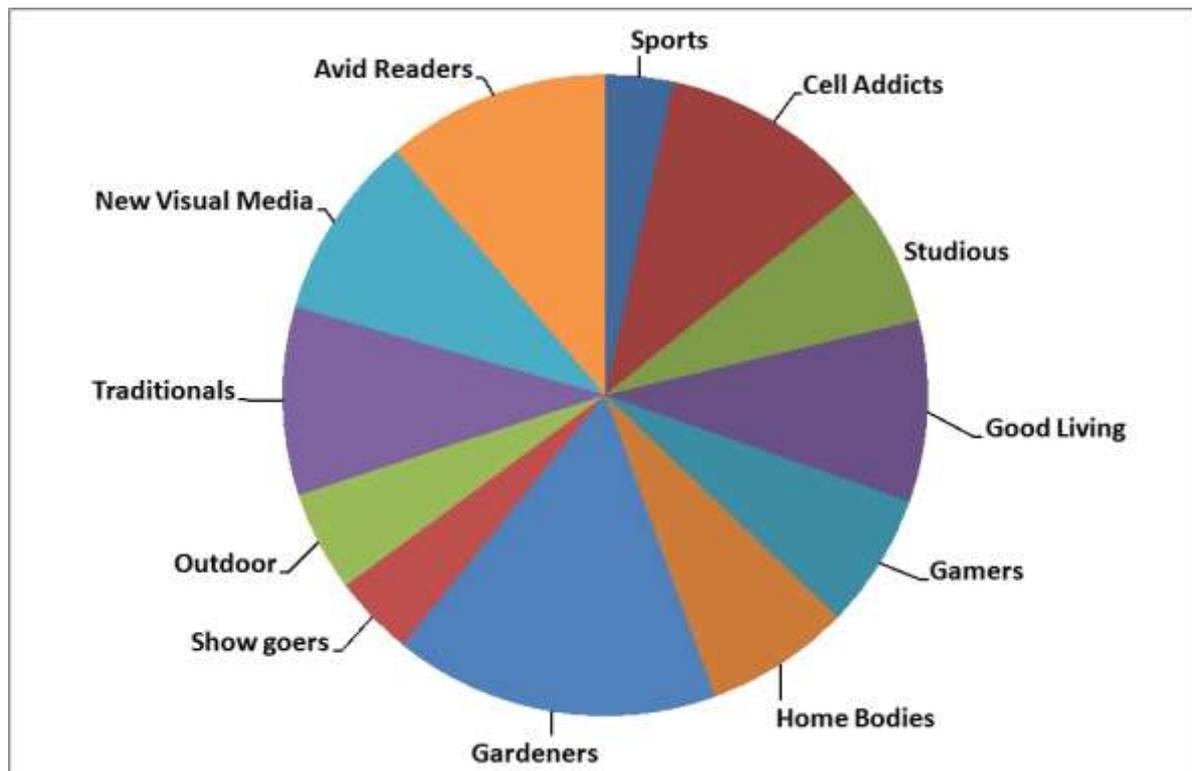
There are three considerations

- Public mandate which would be line with the needs in education

- Industry demand for skills and qualifications
- Public information (which we have seen is a misnomer – it should be public comprehension or even application). For instance the knowledge level may be democracy in action, but the comprehension level makes a person capable of spreading the word. The application level comes in actual voting. There is no point in wasting education programming on the knowledge level prior to an election.

Subject matter covers such a wide range, that it is never necessary to stretch definitions in order to fulfil an educational programming mandate. There are many targets for educational material, and each one requires its own unique subject matter.

- Pre-school education, which is quite simple to develop if you use the chart above.
- Primary school educational programmes can either follow the school curriculum, complement it, or supplement it.
- Secondary school education can also follow the curriculum in the same way, or cover such important aspects as life skills including career and further study planning.
- Further Education and Training programmes can range from education about a topic, or education within a topic. These are two completely different approaches, and the audience will be different for both.
- Tertiary education programming had its foundations laid in the Open University programming. There is no reason why similar programming cannot be produced within our own universities.
- Social development which involves primary healthcare and preventive medicine; housing development etc.
- Civic affairs involving all aspects of government, public administration, constitutional rights, and structures of recourse.
- Lifestyle and personal living programmes cover just about every aspect of lifestyle. Here the lifestyle segmentation helps.



Segmentation like this covers many dimensions is all available freely from the South African Audience Research Foundation (SAARF) and downloadable from their website.⁹

In support of lifestyle segmentation, many people need understanding of all the aspects of life and living open to them. Many are locked into a narrow framework out of ignorance rather than choice.

Occupational programmes will come to the fore when the new educational structures under the Quality Control for Trade and Occupations comes into play

Personal development such as time management, career planning, how to get a job (life skills) is extremely important, especially to this who did not receive that education at school.

Entrepreneurship is one of the foremost economic and social prerogatives in South Africa. It is the most immediate solution to the need for jobs. Jobs in the formal sector are only created when demand for products grows, and this takes time. Starting your own successful one-person business takes a matter of days

3

Researching the target audience.

To research content, you can use statistics from AMPS (through SAARF), the CENSUS, and specialist stats available from government departments. There also many university research bureaux and institutes.

There is still a habit for programmers to work in (Audience Ratings) ARs simply because it suits advertisers.

Audience Ratings are simply a percentage of the number of viewers available because they have access to a TV set. This a 10 AR means 10% of viewers with TV (36-m in 2014).

However, why use a dimension that works for someone else, rather than a dimension that works better for you?

Let's look at the value of examining the data provided by tabular analysis.

Here is Hola ho Monate on SABC2 over a six month period, all individuals (not just adults). The total universe (number of people with TV who could view it) is 25 073 970 – at that specific time of the day, which is 18:30 to 19:30 on SABC 1.

There is a wealth of information here.

Market	Target	Channel	Description (grouped)		
National	Total Individuals (excl Guests)	SABC 2	HOLA HA MONATE		
Profile Header	Profile Details\Variable	(r) AMR %	AMR	SHR %	RCH
Province	Northern Cape	2.9	23,517	30.68%	30,183
Ethnic Group	Coloured	2.3	73,849	16.12%	113,429
Province	Western Cape	2.0	74,522	15.67%	114,627
Targets	Adults: Medium Income (R2500 - R7999)	1.8	186,604	15.12%	338,791
LSM Group	LSM 5	1.8	168,695	17.44%	319,133

⁹ www.saarf.co.za

Targets	Adults: Low Income (R0 - R2499)	1.7	153,871	14.70%	303,031
Age	35-49	1.7	120,490	14.56%	217,611
	25-34	1.7	100,925	14.16%	181,858
DSTV	No	1.6	420,566	16.82%	775,345
Targets	Indiv: Sotho	1.6	175,498	18.60%	326,626
LSM Group	LSM 6	1.6	119,118	15.24%	222,053
Age	50+	1.6	88,866	12.15%	165,437
Province	Limpopo	1.5	50,224	20.66%	99,479
	North West	1.5	33,343	19.09%	60,340
Ethnic Group	Black	1.4	334,247	14.32%	652,892
Gender	Female	1.4	240,457	13.28%	445,051
Province	Gauteng	1.4	110,234	11.65%	195,963
Targets	Indiv: Afr/Both	1.3	67,065	11.71%	107,598
Gender	Male	1.2	203,445	13.44%	378,050
Targets	Indiv: Nguni	1.2	158,645	11.41%	326,161
Province	Free State	1.2	27,934	16.47%	59,889
LSM Group	LSM 7	1.1	51,625	8.75%	117,039
Targets	Indiv: Eng/Other	1.1	42,695	10.22%	62,715
LSM Group	LSM 4	1.1	37,256	23.76%	61,680
Province	Mpumalanga	1.1	28,383	14.08%	59,874
LSM Group	LSM 8	1.1	25,596	9.24%	43,204
Age	13-15	1.1	22,383	15.20%	44,340
	16-24	1.0	66,343	11.28%	135,560
Province	Eastern Cape	1.0	42,140	9.13%	84,572
LSM Group	LSM 9	1.0	32,711	10.01%	45,606
Province	KwaZulu Natal	0.8	53,608	9.32%	118,174
Age	0- 6	0.8	19,029	15.46%	32,991
Targets	Adults: High Income (R8000+)	0.7	36,149	6.24%	58,644
Ethnic Group	White	0.7	30,259	7.14%	46,733
Age	7-12	0.7	25,866	13.32%	45,302
LSM Group	LSM 3	0.5	1,095	9.05%	1,760
Ethnic Group	Indian	0.4	5,548	5.10%	10,046
DSTV	Yes	0.3	23,336	2.83%	47,755
LSM Group	LSM 10	0.3	7,807	3.67%	12,625
	LSM 1				
	LSM 2				

A breakdown of this type is extremely useful as it breaks the audience down into different ages, areas, income groups etc.

You can draw breakdowns that include many other dimensions such as education levels, type of housing, and community size to name but a very few.

Part 4 Concept and design

1

Redundancy

This section is taken from “The Joyless Economy” by Tibor Scitovsky. The book analyses the emotions of people within the context of economic activity, and the media and arts.

Redundancy is a term that is essential in broadcast education (and all education) with regard to attention, retention and absorption.

What is redundancy?

Redundant information is that information that the brain knows it does not need. For instance, when you listen to a favourite song, you already know something of the words and music, so the second and third time around, you are able to concentrate and enjoy the subtleties you missed first time around. When you hear it for the tenth time, you are able to allow it to create mental images, and to develop a deeper meaning.

If you are going to listen to a programme on how to write emails, you could be attracted to it because you have never used email, or simply because you want to learn more about “netiquette” and the legalities of email.

If the programme explains email right from the start, including what the Internet is, and how email software works, then for the person who has never used email, the programme is exciting. It opens doors to new worlds. For the person who only wants to learn “netiquette”, most of the programme is redundant.

We get over redundancy by making programmes shorter, and dividing them into clearly marketable modules, so that the audience can choose which programmes in the series they want to watch.

In a talk show, much of the information is redundant, as some people speak in such long-winded ways that the brain automatically contracts the words into what we need.

The maths of redundancy

When I focus my attention, and concentrate by blocking out all the distractions around me, I reduce the information my brain must process. I further reduce it when it is related to something already known to me. For to that extent it is not new information from my point of view; it is not in need of processing.

That part of the information inflow is called redundant information. Its ratio to the total inflow of objective information is called *relative redundancy*.

The other part of the objective information, the part new to me, is subjective information or subjective novelty; its ratio to the objective information is sometimes called *relative information*.

Take the English language as an example.

A written text conveys 4.7 bits of information per letter, because there are twenty-six letters in the alphabet and $26 = 2^{4.7}$.

That, however, is objective information, much of which is redundant. In English, different letters, sequences of letters, and sequences of words occur with different probabilities.

Because I know English, I know those probabilities, however unconsciously, and the subjective information a letter conveys to me is inversely related to the probability with which I expect it to occur. After all, the function of information is to reduce uncertainty, and the more uncertainty a given piece of information reduces, the greater its quantity.

Conversely, the more strongly I suspect something to be true, the less information is conveyed to me by verification of its truth.

The relative redundancy of the English language is estimated to be 50 per cent or higher. In other words, the subjective information flow contained in an English text is around 2.3 bits per letter. This means that when we write English, we are free to choose only half the letters; the other half is dictated by the laws of spelling, grammar, and syntax.

That is why we can often understand and complete a partly heard sentence, make sense of misspelled words, use SMS style, abbreviations, and shorthand, and solve crossword puzzles. Redundancy in communication is far from useless; it keeps our messages intelligible in spite of errors or imperfect transmission.

For example, when I write in the subject line of an email, I provide redundant information in order to find the email easily in my Sent Items folder. It's also useful to the person to whom I send the email, as they can see the subject line when they download the mail, and decide if it is urgent or not.

Redundancy is equally useful for information-processing. Information that is completely new, completely unrelated to anything we already know, can at best be committed to memory, which for most people is a difficult and unpleasant process. It is also quite slow: the rate at which adults can commit unfamiliar information to long-term memory is estimated at between 0.5 and 0.7 bits per second. Most of the time we absorb information by relating it to what we already know, comparing it with and modifying the fund of information we have already stored in memory, but that is only possible when the incoming information is related to and linked with informational elements familiar to us. Every teacher knows how much easier it is for students to learn if they can relate the new with the familiar, be it by resemblance, parallelism, or contrast, and he will try to help his students by stressing or bringing in elements that establish such a relation. Redundant information, far from adding to the burden on the brain's processing capacity, renders information-processing easier and more pleasant.

A completely unfamiliar sight, sound, taste or smell is bound to be bewildering and therefore unpleasant. A fictional story, to be enjoyable, must deal with characters and situations which have some affinity to those we are familiar with. The same is also true of news. A news item is interesting only if it deals with subjects or people we already know, or know about; it is usually the more interesting the more intimately we know them.

In music, a melody never before heard and not fitting into any musical tradition we are familiar with is likely to leave us puzzled and uncomprehending. Some redundancy is already provided when a piece of music is written in (and recognized as written in) a given key, since the tones belonging to that key can be expected to occur with greater frequency than others, with the tonic and dominant of that key occurring with even greater frequency. If, in addition, the piece belongs to a certain period the listener is familiar with, there is more redundancy, enabling the listener to predict even more; and if he can also guess the composer, there is more redundancy still. Very much the same is true of painting, dancing, and any other artistic production. Usually, to enjoy any such work, we have to recognize it as belonging to an artistic school or style we are familiar with, because that provides the necessary redundancy.

In short, some redundancy is essential to render anything new pleasantly stimulating, and the degree or amount of redundancy has much to do with how pleasant it is. Just as perfect originality or no redundancy is unpleasant because it is bewildering, so perfect banality or full redundancy is unpleasant because it is boring. The pleasant lies in between; and here too, an inverted U-shaped Wundt curve seems to describe the way in which pleasantness depends on redundancy. The degree of redundancy that is the most pleasing varies from person to person. Introverts, presumably, enjoy more redundancy, extroverts less. Also, the very young and the very old seem to want very much more redundancy than the rest of us do. Infants and young children seem, by grown-up standards, never to tire of repetition, and much the same is true of the very old, who not only repeat themselves, but seem to enjoy rereading old books and rehearsing old stories. The explanation in both cases probably lies

in the lesser retentive or absorbtive capacity of their memories, but that is a subject on which little is known.

(Tibor Scitovsky. The Joyless Economy)

Educational programming does not contain much redundancy

Educational programming is neat, precise and concise. Unless it contains information that we have learned already, there is probably no redundancy at all.

There will be redundancy for some people, because, as we saw earlier, learning is a personal and individual activity.

But since we cannot broadcast to sectors of the audience depending on their prior knowledge, we have to construct programmes to the level of prior learning that is at the minimum.

2

Setting outcomes

How to write an outcome

An outcomes for an educational programme is:

What the audience can show they can do after the programme or series

An outcome therefore:

1. Starts with an action word than can be seen, or provides evidence in any way.
2. Describes a small competency.

That's all. But there are some basic rules.

Action word

The proper word for an action word is a verb. But we use the expression "action word" as not all verbs meet the requirements of an outcome.

Know, understand, appreciate, enjoy, realise are NOT suitable. There is no way that anyone can see, observe or prove that a person "knows" something. The word that has to be chosen is an action word that describes some sort of action that will demonstrate that someone "knows" something.

Some of these measurable action words are listed in the table below

A bad outcome

Know the Bill of Rights

A good outcome

Explain the most relevant items in the Bill of Rights that pertain to dignity.

Outcomes should be:

- Short
- Precise
- Describe a small competency
- Measurable

Depending on the length and scope of the programme, each half hour programme will have between one and three outcomes. If there are any more than three outcomes, then there should be more than one programme.

Knowledge	Comprehension	Application	Analysis	Evaluation	Creation
Remembering facts, terms, concepts, definitions, principles	Explaining/ interpreting the meaning of material	Using a concept or principle to solve a problem	Breaking material down into its component parts to see inter relationships/ hierarchy of ideas	Making a judgment based on a pre-established set of criteria	Producing something new or original from component parts
define	classify	apply	analyse	appraise	argue
describe	compare	assess	appraise	argue	arrange
label	contrast	choose	break-down	assess	assemble
list	describe	construct	calculate	attach	collect
measure	discuss	demonstrate	categorise	attack	combine
memorise	explain	dramatise	compare	avoid	compose
name	express	employ	conclude	choose	conclude
recall	formulate	explain	contrast	compare	construct
recognise	identify	find	criticise	conclude	create
record	indicate	find	debate	consider	derive
relate	judge	illustrate	diagram	criticise	design
reproduce	justify	interpret	differentiate	decide	develop
select	locate	operate	distinguish	deduce	discuss
state	name	perform	examine	defend	document
underline	recognise	practice	experiment	determine	formulate
write	report	practise	identify	estimate	generalise
	represent	predict	inspect	evaluate	invent
	restate	schedule	inventory	identify	manage
	review	select	justify	infer	modify
	select	show	question	judge	organise
	tell	sketch	relate	measure	originate
	translate	use	resolve	rate	plan
			select	recognise	precise
			separate	revise	predict
			solve	score	prepare
			test	select	produce
				support	propose
				validate	relate
				value	restate
					select
					set up
					summarise
					tell
					write

3

Setting learning objectives

The next step after setting the outcomes for a programme is to decide what amount of teaching/training/instruction/education is needed to achieve those outcomes.

It needs a list, which you can call a “curriculum” if you like.

Then this list must be described, and more or less timed.

For instance:

Outcome

Make a water filter using sand.

Curriculum

Explain the need for filtering water	1' 30"
List the items need for the filter	1' 00"
Assemble the parts	2' 00"
Clean the sand	1' 30"
Insert the sand	1' 00"
Demonstrate the working	1' 30"
Describe the maintenance needed.	2' 00"
Revise	1' 30"
	12" 00"

Chunking

Now you need to divide the curriculum into bite size chunks of no more than five minutes each. Why five? It's just a guess. Different age groups, with different reasons for watching will have different attention spans. You rarely give adults more than eight minutes teaching at a time.

There is a rule:

Teach five, test five

Which means that you give the audience five items to learn, and then you test those five - somehow.

It's all a guess: you must feel comfortable that your chunking will meet the needs of the audience, the feel of the programme and your intentions or objectives

In fact the list above of the items in the curriculum are a nice breakdown into chunks already.

You may get more pace into it, if you chunked like this:

Introduction	Explain the need for filtering water	1' 30"
The assembly parts	List the items need for the filter	5' 30"
	Assemble the parts	
	Clean the sand	
	Insert the sand	
The working	Demonstrate the working	3' 30"
	Describe the maintenance needed.	
The revision	Revise	1' 30"
		12" 00"

There are no rules, just principles.

Each chunk should have a learning objective.

The learning objectives for the four chunks above could be written like this

Chunk	Learning outcomes	Time
Introduction	To list the dangers of unfiltered water from rivers To detail the benefits to healthy living by filtering water	1' 30"
The assembly parts	To show the parts that need to be found To show how the parts are fitted together To show what type of sand to use, and how to clean it To show where the sand goes in the assembled filter	5' 30"
The working	To show how to work the filter To show the steps in cleaning the filter	3' 30"
The revision	To revise the benefits of filtering water To stress the simplicity of a home filter	1' 30"
		12" 00"

What is the advantage of the learning outcomes?

They clearly show you what you are going to teach in each chunk.

You don't like the word "CHUNK"? Then replace it with the word "module".

4

Structured programming

Now comes the real challenge.

- How are you going to assess the outcomes?
- How are you going to collect evidence that a satisfactory number of viewers have actually learned how to make this water filter?

Step 1

What is your total target audience for the programme in that slot, and in all the repeat slots?

We count the number of unique viewers, the "cume". This eliminates those viewers who watched more than once. Cume is available from the same source as AR.

Step 2

What is your target of the total audience for those to learn?

Never set it above 20%. Why 20%? It's a convenient range based on the Pareto Principle. This Principle is the basis of the 80/20 rule, which can be interpreted as "of every 100 in your audience, only 20 will actually be interested enough to learn."

Step 3

What do you want those 20% to do that you can physically measure?

Now you get creative.

- Do you want them to build a water filter?
- Do you want them to improve on your water filter?
- Do you water the viewer to build a water filter?
- Do you want the viewer to motivate a group of families to build a filter?
- Do you want a school to build their own filter for the whole school, or just one class?
- Do you want a group of viewers to start a business building water filters?

You decide.

How about one or more of these ideas?

- Put a transcript of the programme in comic form on your website, and count how many downloads you get.
- Tell the audience that if they need it, you can SMS all the steps to them to try it out.
- Offer a competition to people who have done it. All they have to do is take a photo of their water filter they have made, and WhatsApp it to you, and they will win a prize.
- Offer a competition to those people who can do it another way, and they will win a special prize.
- Offer a prize to those who can get other people they know to send in water filters that they have made, based on what they were shown the by the competition entry.
- Give a prize to the school class who send in their photo of their water filter.
- What's' your idea?

The structure of your programme has to consist of:

1. Your outcomes
2. Your chunks (Modules)
3. Your learning objectives

Now that you have done the structure, you can get creative.

And only now

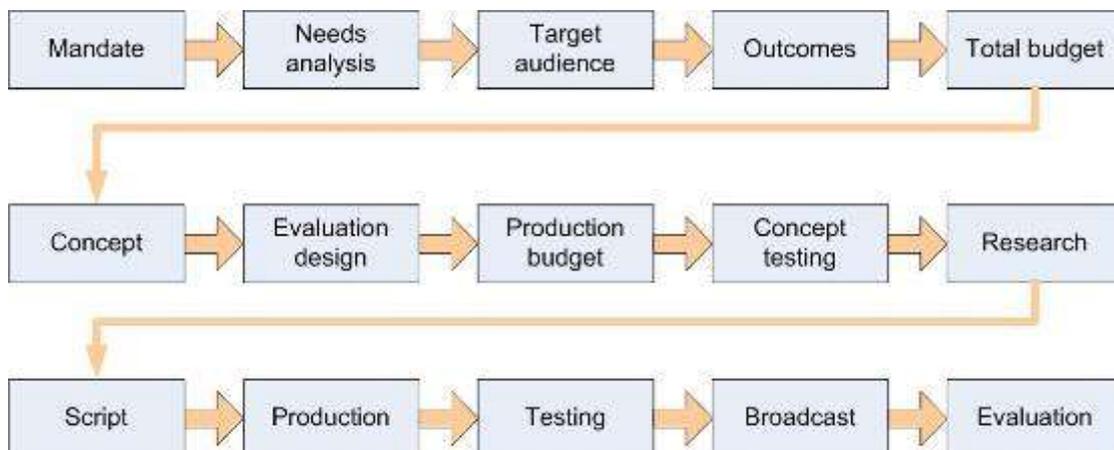
Creative educational programmes

How you put together the structure above is your business, you can do it any way you like

5

Towards a procedure for programme design

Here is a chain of events that lead to the final evaluation of an educational programme.



From here we will design a set of procedures from two points of view – the broadcaster and the producer.

In some cases, these are the same, but in most cases, the broadcaster contracts out to the most expert and efficient producer.

Educational programming different to other programming

Educational programming has primarily to teach through entertainment.

It is not like a drama, where the story unfolds through suspense over an hour. It is not like a documentary that uses dramatic techniques to show a real life story.

It is more like a music or talk show.

In both these shows, the discreet elements are short, and the listener is given time to reflect.

Both talk and music shows have a large amount of redundancy.

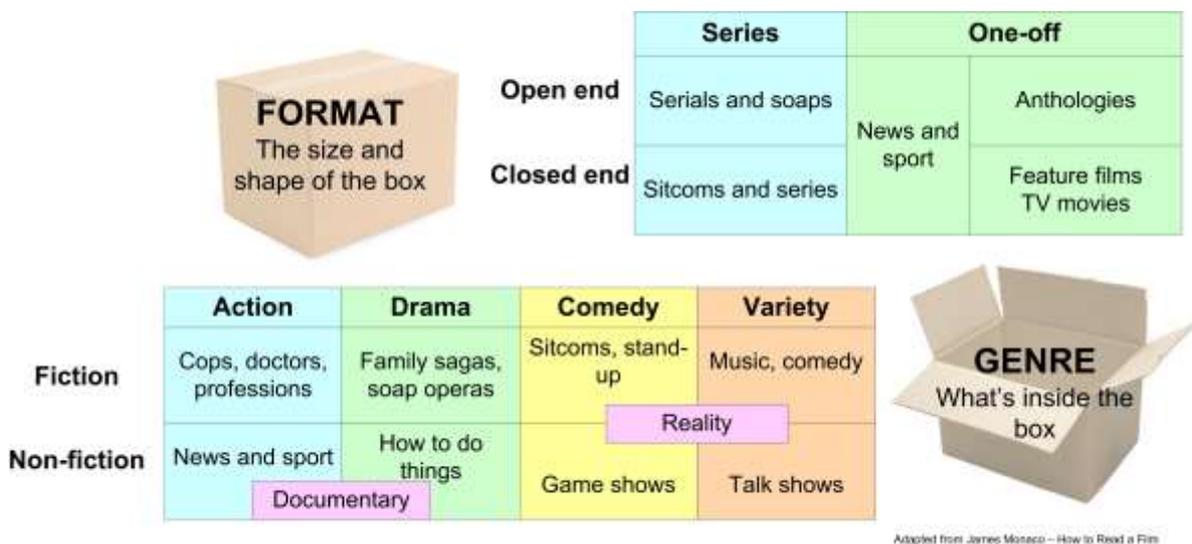
Genres and formats

We all know about genres in radio and television. There's drama, and there's music. There are talk shows, and documentaries. There are current affairs on the scene reports, and current affairs in-depth discussions. Then there are game shows, and reality life style shows. And a few more.

That's when the nonsense starts, and people start taking about "cross-over genres", like "edutainment", and infotainment" and "edu-drama".

The most complex you can get is to divide programmes into genres and formats, where the format is the box the programme comes in, and the genre is what's inside the box.

Like this:



Educational programming must be modular

Educational programming, because we have to assume that it has no redundancy, requires intense concentration.

There is little drama and suspense of the type we expect in a drama or documentary, so we have to package it into chunks.

These chunks must be separated from each other in such a way that the audience is given time to reflect.

Reflection is an activity that allows the learner space to contextualise and comprehend.

There are a number of factors that define what makes up a module, or section, or chunk (or whatever you want to call it).

Attention span

There are no measurements for what attention span is. There are some guidelines, but they must be taken merely as a guide.

A child's attention span is about 5 minutes and an adult's about 20 minutes.

Many teachers quote the myth that a person's attention span is 10 + Your Age minutes, and that anything taught after that is not taken in, but by taking a five or ten minute break after this time will help the class recover and replenish their attention span, but there is no evidence that this is actually successful.

The reason this is a myth is that attention span can only be measured in terms of "attention span to *what?*" People have no trouble with a 2-hour movie, but cannot watch more than 2 minutes of a report in the news. It all depends on the person, their intensity of interest, their need, and their attraction to the subject matter.

On radio and TV, it is useful to say that when a module (or chunk) has run for eight minutes, it is time for a break.

There is a common rule in outcomes based training that allows for formative assessment.

This rule is the "Teach 5, test 5" rule.

It says that you should teach five elements of knowledge or skills, and then test those five.

In broadcast programming, the best interpretation of this rule is:

1. Teach for as long as you feel the attention span is, but limit it to five "bits" of knowledge or skill.
2. When you get to eight minutes ring the alarm bells.
3. Then give the viewer a break and either:
 - a. Review it.
 - b. Give the viewer an activity with which to test themselves.
 - c. Go to an ad break.

There are no rules and no guidelines for chunking. It varies with the subject, the target learners and the intentions.

Let's just say that:

1. A module is a piece of knowledge or a skill that is useful in itself.
2. A module should not consist of more than five chunks.
3. A chunk is a piece that can be seen to exist on its own, but still forms part of the logical string of five elements that make up the module.

These guidelines are based on the theories and research developed from the 1960s on short- and long-term memory.

The work seems to indicate the five elements are ideal for short-term memory, although what comprises a "piece", "bit" or "chunk" remains a subjective judgment.

Either you get it right, or you get it wrong. The more you know the audience, and the more you make mistakes, the more likelihood there is that you will get it right.

This checklist will guide your thinking about building taxonomies in order to assist your trainees in transferring learning:

1. You have structured the learning objectives according to a well-ordered plan, such as lowest or easiest to highest or most difficult skill.
2. You have analysed what you intend to teach for its intellectual (cognitive) skill components as well as its hands-on (psychomotor) skill components. Each group of skills has a range of easy to difficult.

3. You have considered your trainees' comfort levels during the training experience and realize that each trainee has a psychological need to be protected, safe, at ease, and valued during learning.
4. You recognise that each trainee has a different priority regarding the application of training—some will need to use the new skill tomorrow, whereas others will not need to use it until next month. You have made an attempt to find out what this hierarchy of urgency really is.
5. You have consistently tried to describe before you explain; you tell what the rules are, then tell why to use them; you verify that concepts have been mastered before you expect your trainees to solve problems or exercise mature judgment.
6. You pay attention to the very first stages of learning—how trainees respond to stimuli, especially visual and auditory stimuli, recognizing that each person learns at a different rate, even at these early stages of learning.
7. You understand that positive steps can be taken to assist the trainee to remember—that is, memory-enhancing skills are hierarchical and have to be taught.
8. You have reviewed the works of familiar taxonomy builders, including Bloom, Gagne, Gardner, Guilford, Hall, Mager, Maslow, Piaget, Simpson, Sternberg, Coleman, and others.

6

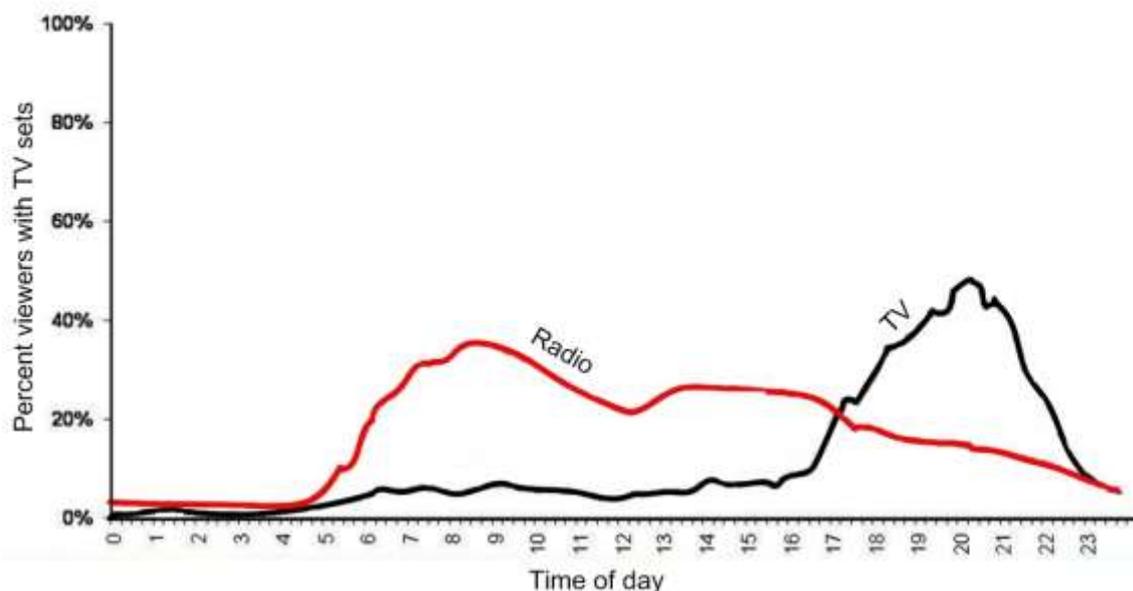
Scheduling

You can only broadcast to people who, where and when they have access to a TV set. Even when TV goes mobile to a significant extent, these will still apply, as people still won't have unlimited access to mobile devices everywhere and all the time.

This makes scheduling extremely simple.

This pattern shows the difference between radio and TV viewing patterns from midnight, to midday and on again to midnight.

The left hand axis shows the percentage of people with access to a receiver.

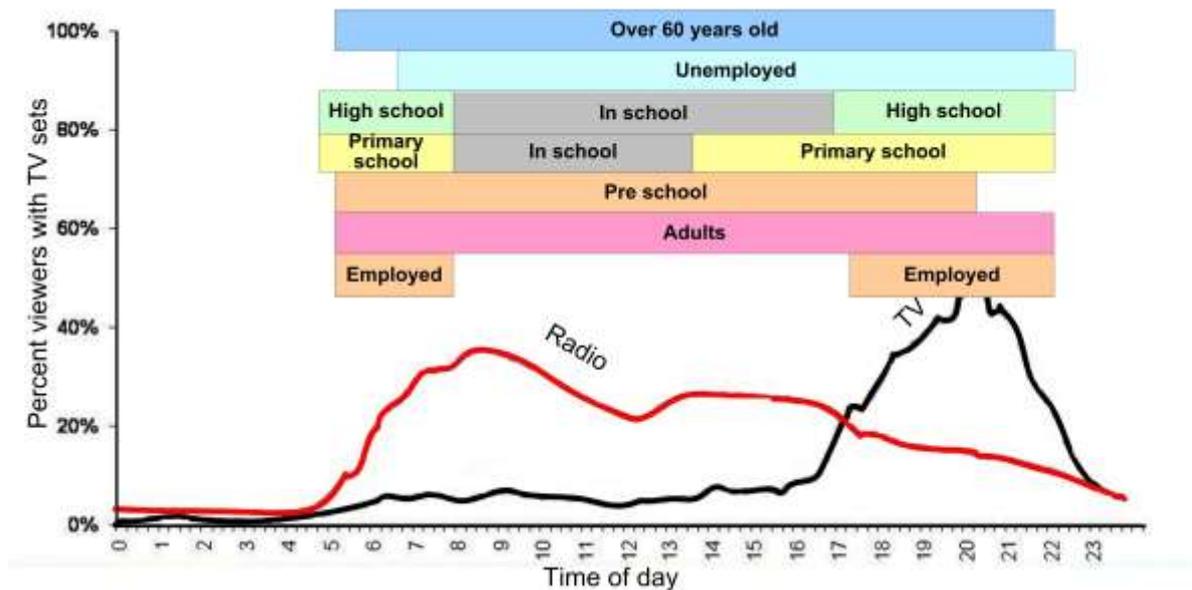


Two things are striking from this graph:

1. Radio and TV appeal to people (because of access) at different times of the day.

2. The two media complement each other.

Let's take another look at the graph, but this time examine WHO is at home, and therefore free to be an audience, and at what time of the day.



If we are researching a multi-channel environment, it's easy to see how educational programming could easily occupy four 24-hour channels.

7

Integrating broadcast with social media

As little as two years ago, this chapter would be titled "Supporting broadcast with social media."

Not anymore. Social Media is part of broadcast. Most people have access to it. Take these figures:

- There are more mobile phones than people in South Africa.
- Everyone has access to a phone.
- More than 60% of phones are smartphones, with access to the Internet, even though many people cannot afford the data time.
- Almost all South Africans are in contact with each other by mobile phone at least once a week.

If that has changed drastically from 2013 to 2015, imagine what the figures will look like in 2016. By then, South Africa should have digital transmission, data time will be much cheaper, and most of the large cities will have free Wi-Fi.

Maybe there will be free Wi-Fi in the smaller towns, who knows?

The fact is, there is no choice. You either integrate with social media now, or you will end up producing the programme again later in order to do it properly.

The reason for this integration is that the two media, broadcast and digital social, are so different, but the advantages of one make up for the disadvantages of the other. Together they make a perfect match.

Broadcast	Digital Social Media
Runs on a schedule decided by the broadcaster	Anyone can access it anytime
Can only be viewed on a TV set	Can be viewed on a computer, mobile smart tablet or

Broadcast	Digital Social Media
	smartphone
Is limited to the programme slot duration	Has no limits of space. You can load on it as much as you like
Only contains the broadcast programme material	Can contain not only the video, but also audio files, pictures, animations and documents.
Usually has only one sponsor	Can also be financed through advertising
The TV set has to be shared with others	Can be viewed privately.
One –way. The broadcaster “pushes” the video to the viewer.	Available on demand, The viewer just has to go to the site, and receives of much of it as wanted at any time
According to schedule	On demand

Context

Education is of no value unless it is delivered together with its context. The art of the broadcast programme is to deliver the context AND the content in a limited time. This is not easy, and is always a compromise.

1. Either you include only a small amount of content, and carefully make sure that everything is contextualised.
2. Or you deliver as much as you can and hope the viewer remembers some of it.

When you integrate with social media, you do not have this conflict or compromise.

You can reduce the scope of the content in the programme, embed it in entertainment to make it fun, and refer to activities that the viewer can do.

Content

All the in-depth and background material can go onto social; media. Social media can also host the educational activities needed to reinforce the learning. In fact, it is possible for viewers to interact with each other and form learning groups, often called Communities of Interest.

In the same way as video games are played online, so learning activities related to the subject, can be shared and participated in online.

With a little ingenuity, this combination of broadcast and social media is a very small step away from Distance Learning.

Infographics are very difficult to use on television as the graphic cannot be enlarged on the screen. Also some people take longer to read than other.

If the Infographic is on the Facebook page, the website or the mobi-site, the learner can read it at their own pace, and also enlarge, reduce and move according to the way they want it.

If the educational programme encourages viewers to write a script, or any other form, then the viewers can:

- Mail it in to the broadcaster.
- Share it on Wordpress
- Discuss it publicly on Facebook
- Discuss it privately via WhatsApp or any other Messenger
- Participate in a Skype session (although this will, still be limited in South Africa for a few years.)

- Or any other combination that a creative education producer can think of (bear in mind what the cheapest smartphones are capable of, and the cost of prepaid data time)

Part 5 Production and broadcast

1

Checklist for producers and commissioning editors of educational programming

Any producer of educational programming knows that the final judge is the commissioning editor. Instead of making up a checklist just for producers, I have done one for the commissioning editors. With this list, a producer of programming can check that all the requirements are included in the proposal.

Mandate

Is the mandate brief clear?		
Have I clarified those parts that are not clear?		
Have I confirmed my interpretation of the mandate brief in writing?		

Needs analysis

Have I converted the mandate brief into a statement of needs?		
Have I researched in which audience segments this need occurs?		
Have I defined the need in terms of knowledge, skills and attitude?		
Have I attached domains and levels to the knowledge, skills and attitude?		
Have I attached a NQF level to the needs?		
Have I then defined the audience in terms of segmentation as well as quantity?		
Have I attached prior learning to the needs?		
Have I outlined the outcomes?		
Have I defined all the benefits of these knowledge, skills and attitude to the audience?		
Have I thought about possible evaluation techniques?		

Target audience

Have I defined the audience in terms of demographic segmentation?		
Have I defined the audience in terms of qualitative segmentation?		
Have I calculated the possible numbers of people in this audience, and then estimated the possible viewers?		
Have I calculated how many of these people have access to feedback?		
Can I describe the audience as if it were just one person?		
Have I confirmed that they have the prior knowledge required?		
Does this limit my potential audience or make it too wide?		
Have I confirmed that they will be motivated by the benefits?		

Outcomes

Have I written out the outcomes in outcomes format?		
Has each outcome got an evaluation criterion attached?		
Are the outcomes simple?		
Do they express only ONE outcome per sentence?		
Have I checked that the outcomes are written with "Bloom" words?		

Modules (Chunks)

Learning objectives

Total budget

Did I confirm the total budget when I confirmed the brief?		
Is the budget, in principle, enough?		
If not, what have I done about it?		

Concept

How does the concept relate to the outcomes?		
How does the concept relate to the needs and the audience?		
Is the concept feasible within the overall budget?		
Is the concept new and innovative?		
Does the concept lend itself to modularisation and chunking?		
Do I have the writers and performers to execute the concept?		

Evaluation design

Have I identified at least three ways to evaluate the success of the program?		
Are the outcomes measurable in terms of these evaluation methods?		
Can I use all three, and average between them?		
How will I evaluate against the budget?		
How will I evaluate against numbers of audience?		
How will I evaluate skills learned?		
To whom do I have to report?		
Have I agreed the evaluation criteria with them?		

Production budget

Does the production budget fall within the overall budget?		
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Does the overall budget allow for research, testing, production and evaluation?		
Does the budget allow for contingencies?		
Has everyone agreed the budget?		

Concept testing

How will I test the concept?		
Are testing methods:		
Reliable		
Consistent		
Relevant		
Valid		
Current		
Targeted		

Research

Have we defined contexts and concepts?		
Are the researchers qualified to conduct research?		
Have I written a research brief?		
Has all research been defined as a budget line item?		
When is the deadline for delivery?		
Are all researchers properly contracted?		

Script

Will the scriptwriter have enough research?		
Does the writer understand education methodology?		
Does the scriptwriter need an education advisor?		
Does the scriptwriter understand the target audience?		
Does the writer need an audience advisor?		
Does the scriptwriter have a deadline?		
Is the scriptwriter contracted to make changes during the whole of production?		

Production

Is there an audience and education advisor attached to the production?		
Does the production need them?		
Is there the possibility of testing at various stages of production?		
If so, how?		
How will production be monitored?		
How will educational needs and technologies be monitored?		

Production Testing

How will the production be tested prior to final master?		
Are the costs of testing included in the budget?		
Is their flexibility to change the method of testing if it doesn't work?		
Are the testing sessions included in the schedule?		
Who will evaluate the testing?		

When will they report?		
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Broadcast

How are the prior learning, outcomes and benefits communicated to marketing?		
Who is delegated to view broadcasts?		
Is anyone delegated to view broadcasts with the target audience?		
Of not, why not?		
How is interactivity to be monitored?		
Who will monitor and report?		

Evaluation

Who will conduct the final evaluation?		
Does that person know all the inputs?		
Is there a timeline?		
Does everyone know it and the stages?		
Are the costs included in the budget?		
Is there a deadline?		

2***Building in assessment feedback*****Feedback**

Evaluation relies on feedback. Every educational project on public television should have some form of feedback built into it.

Some forms of feedback**Ratings**

Ratings, both from RAMS and TAMS can be analysed against the target audience.

These are the common dimensions of audience ratings that you can call for from the Audience Research department:

Age

All programmes must be targeted to a specific age group or groups. Different age groups have different needs.

Gender

Sometimes genders have different needs.

Language

If a programme is in a specific language, you need to know that the majority of viewers are in that target group. If other language groups have received the programme, it gives you valuable information on general needs and also the ability of a specific language to attract those other groups. It also tells you if TV sub titles have worked.

LSM

Although LSM may not be a specific target, an analysis based on LSM does tell you if the needs of a specific social or income group have been met.

Cell phone, fax, post and email

If feedback is built into the programme in order to elicit feedback, the nature of the communication can be analysed. The time of the feedback is also important as it tells you how long after the broadcast it took the audience to feed back to you.

Teacher support

It is sometimes possible to elicit the support of teachers in the programme broadcast, and then to analyse pupil reaction to the programme.

Materials on request

Sometimes it is possible to publish specific additional printed materials, and to make them available on request through the programme website or the audience's mobile device. The volume of requests does give an indication of the interest in the subject.

Further information sources

If the programme publicises that other bodies or persons are available to give additional information or support, you must get the cooperation of these bodies to tell you the volume, nature and times of enquires.

Interactivity

It is also possible to include live phone-ins and communication of other kinds during the programme. This built-in call for feedback is the most valuable and most important.

Combinations

Always try and build into the programme design a combination of these feedback mechanisms.

Using Ratings creatively

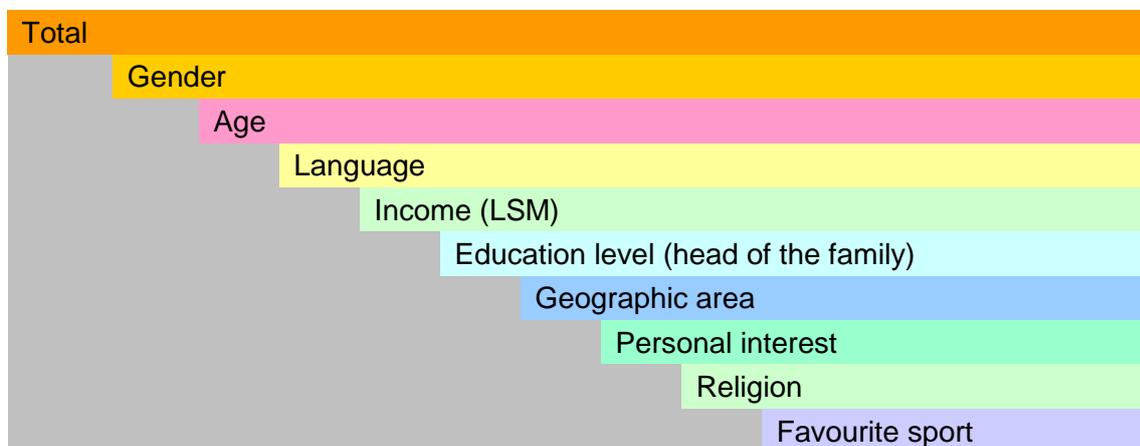
Audience ratings, as they are conducted by the South African Advertising Research Foundation (SAARF) are primarily designed to help marketers determine where their target market is watching/listening/reading/surfing.

However, there is a lot of data buried in these ratings that are not always known, especially by audience researchers who serve the advertising sales departments.

You will have to request this information separately, as it is not obtainable from the usual sources.

Target audience

You can get ratings in terms of your target audience. You can even ask for ratings as detailed as this:



This means that you will refine downwards from the whole audience, selecting first only the gender you want, then within this smaller amount, just the age group you want. Then the language group, LSM, Education level, etc. until you come down to your target audience which could be very small.

Remember that you can get an AR of this small audience.

The ratings data will tell you how many people within this small segment have access to TV, and will call that number: 100%. Every AR of this target audience will be 1 AR.

If you are getting a 50 AR of your target audience, you are doing the best you may hope for.

The second strategy is to track your target audience every thirty seconds for the first five minutes. This means you will ask for an AR (ask for them to two decimal points), each thirty seconds from the starting time of the programme.

If your opening sequence is only 15 seconds long, then your first thirty second reading will come in 15 seconds into the body of the programme.

Track these ratings graphically. The graph will tell you lots, especially if you track the first four programmes in the series in this way.

Every thirty seconds

Using Social and Mobile Media

By the time you read this, it may well be out of date. Mobile media advances at such a pace, that you should use these only as examples of what was possible at the time of writing.

3

Evaluating programmes

This is the easiest and shortest part of the book. Because we have covered evaluation from the start, and steadily through the book.

We have seen that knowledge is not satisfactory at all. Knowledge may apply to the news, where the broadcaster has to fit in as many stories as possible within limited time. But knowing that deficiency, all news departments have their in-depth programmes which are called "Behind the News", "Special Reports" and so on.

This is to raise the stories that are at the Knowledge level, up to the comprehension level.

If we have a programme that is at the application level, we want as a result for people to DO something. Even if that something is to log onto a website in order to get further information.

It is unlikely that people will go to the effort of seeking further information, commenting, sharing or contributing to at merely the comprehension level.

In doing any of these things, they are DOING, which means they have reached the Application level. All we do to evaluate is to put into practice all the things in the previous section.

Evaluation is easy.

It is no more than putting into practice what we built into the programme design and the programme objectives.

Checking off against objectives

We will simply check off against the following evaluation criteria that you will have written into your Business Plan.

AR of target audience		
Revenue		
Net profit/loss		
Feedback instruments		
Number of respondents targeted		
% of cume		
Compliant		
Learning outcomes		

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