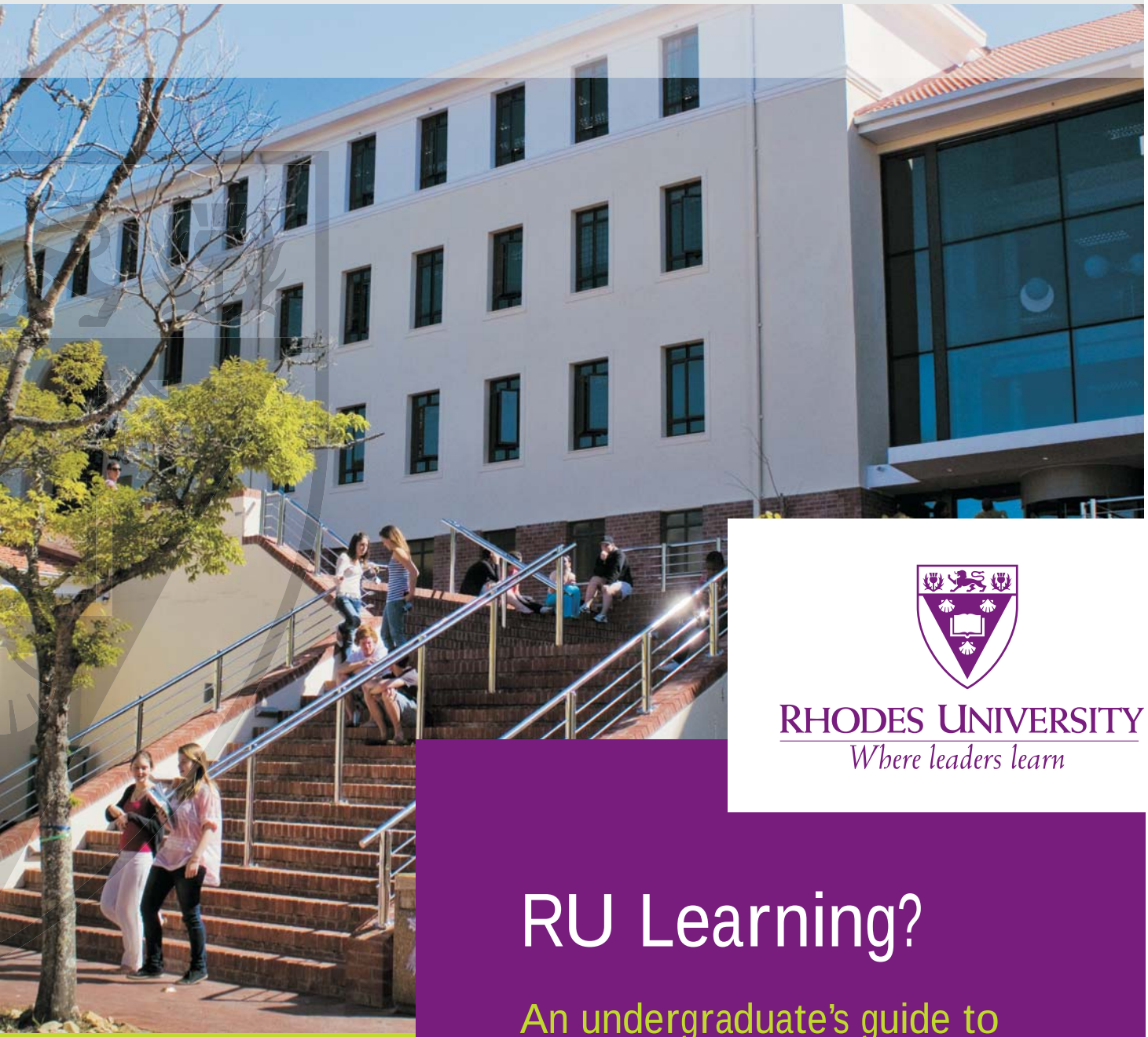
Centre for Higher Education Research, Teaching and Learning (CHERTL)



RHODES UNIVERSITY
Where leaders learn

RU Learning?

An undergraduate's guide to learning at Rhodes University

Professor Chrissie Boughey,
Dean, Teaching & Learning

RU Learning?

An undergraduate's guide to learning at Rhodes University

Published: April 2015
Author: Professor Chrissie Boughey

www.ru.ac.za

CONTENTS

Professor Chrissie Boughey is Dean, Teaching & Learning at Rhodes University. Her office is located in the Centre for Higher Education Research, Teaching and Learning (CHERTL).

RU Learning!

An undergraduate guide to learning at Rhodes University

Well done!

Congratulations – you're now at Rhodes University and on your way to getting a degree!

Now you are here, what do you have to do to make sure that you build on the success you achieved at school and get a really good degree? Many of the more senior students you will meet will tell you not to worry about working hard - that it's perfectly possible to have a really good time and still pass and having a good time is, after all, what coming to university is about, isn't it? They might even back up their claims about not working by seeming to spend most of their time partying with friends. It's my bet, though, that if the students saying this sort of thing and who were doing *well* academically, were questioned or observed more closely, we would see that they actually do a lot of work, and 'smart' work at that.

Those not doing well would be a different story but doing well means working hard and, of course, still finding time to have fun with friends, join societies, involve yourself in sporting and cultural activities and do all the other things which make a university education so special.

For most people, and in spite of what many will tell you, coming to a university is a *challenge* - and so it should be. Universities are institutions of *higher* education and this means that you will be pushed to think and work in ways which are different to what you may be used to. If all this is a scary thought or, even better, if the idea of taking up a challenge appeals to you, keep on reading ...

A knowledge supermarket or a knowledge factory?

Now you've here, it's worth spending a few minutes thinking about what a university actually is.

Many students think of a university as a kind of knowledge supermarket - a place with lots of different packages of knowledge on its shelves which can be picked up and placed in a trolley. For them, studying is like buying a tin of sociology, a packet of physics, a bottle of economics and so on and the university is the place that sells these things. Getting a degree is then like getting a receipt at the check out - you've acquired all that knowledge and here's the paper to prove that you've got it and that you've paid for it with blood, sweat and tears and probably quite a lot of money too.

This sort of understanding of what a university is leads students to do things that aren't going to allow them to develop the sort of thinking and learning that leads

to really good marks and to the development of themselves as graduates. Some students, for example, clamour for, and even insist on, notes and handouts of PowerPoint slides from their lecturers in the belief that remembering what's in the handouts is what is required of them.They go to the library and copy entire passages from the books they find into their assignments or simply reword what they find in those books. As you'll see later on, however, learning as remembering and repeating what you have picked up from a shelf is not what is valued at a university or, indeed, in the world of work.

So, if you think of a university as a knowledge supermarket, then the chances are that you won't learn in the way that you need to learn in order to pass your courses and get a degree. Another possibility, of course, is that you might well learn enough just to pass but you won't get what you could get from the experience of being in *higher* education because your ability to think and argue won't develop in the way it could develop. If this is what happens to you, and building on the supermarket idea, then getting a degree is like getting a receipt for a trolley full of goods which you can't actually use.

If a university isn't a knowledge supermarket, what's a better way to think of it? Well, a better way to understand a place like Rhodes University is as a knowledge factory - as a place which *produces* knowledge rather than one which 'sells' it.

Let's think about that a bit more. All the academics who will teach you during your time at Rhodes are

So, if you think of a university as a knowledge supermarket, then the chances are that you won't learn in the way that you need to learn in order to pass your courses and get a degree.

expected to be involved in some kind of research - in other words, they are expected to be producing new knowledge.

The idea that your lecturers should do research - should be involved in producing new knowledge - affects the way the university is organised. Lecturers don't teach as much as teachers - they teach fewer hours per week and often they have entire blocks of time when they do no teaching and when they might even go away from the campus.

This is because the university acknowledges that they need time to do research, to think and write without other distractions. The 'vacs' aren't really holidays either - officially, the university goes 'into recess' and, once exams are marked, then your lecturers will focus on their research - on the production of new knowledge.

Behind all the teaching then (and the teaching, of course, is what most undergraduates see of a university) is the production of knowledge. Although teaching goes on, *behind* that teaching the university is hard at work at producing new knowledge which is presented to the world in the form of books, articles, patents and various creative works.

So what does all this mean for you? Well it means that the point of coming to a university is not to consume or 'buy' the knowledge produced by the

university but rather to learn how to produce academic knowledge for yourself. Why should you learn how to do that? Well, apart from the enjoyment of being involved in producing new knowledge, your ability to do so is what will be valued in the workplace.

Let's consider that statement for a moment. If you think that the point of coming to university is to 'get' knowledge - to 'learn stuff' - why would anyone want to employ you once you have got a degree? Computers are everywhere in the world today and knowledge can be called up at the click of a mouse or a tap on a screen. If all an employer wants is someone who 'knows stuff', why would she bother to employ a person at all unless as someone who can use a computer?

More highly skilled people like managers, lawyers, accountants and psychologists aren't simply recalling knowledge to do their jobs, rather they are engaged in all sorts of activities which effectively require them to produce *new* knowledge. When a lawyer builds a case, she draws on knowledge of the law and knowledge of past legal cases but she does so in order to build a completely new piece of knowledge - an argument for her client. When a manager identifies a project, he develops a plan to complete it. To develop the plan, he draws on knowledge of the project area and on theories of management but what he produces in the plan is an entirely new piece of knowledge. When a psychologist assesses a child's development, she draws on theories and analyses the results of the tests she has administered in order to arrive at a statement about the child (for example that the child is 'school ready'). This statement is a form of new knowledge about one particular child. Most importantly (and more of this later) it's a statement which is based on evidence (what the psychologist sees when she assesses the child) and is theoretically *informed* - or led by the theories the psychologist has studied about human development.

There are other reasons why you should learn how to produce new knowledge other than in order to get a job, of course. South Africa is a country that has gone through, and continues to go through, enormous change. Even though you may be a 'born free', it wasn't too long ago that the majority of the population were not free and the history of our country continues to shape so much of what we still see around us including the enormous differences between rich and poor. Knowing how to produce new knowledge - statements based on reasoning and evidence - will allow you to argue and to say things which cannot simply be dismissed as 'rubbish' or as 'Well that's just your opinion'. Knowing how to produce academic knowledge will allow you to become a critical citizen - a sort of person our new democracy needs if it is to flourish.

> At university then, what your lecturers are trying to do is teach *you* how to build new knowledge, to teach you to do what they do every day of their lives.

If this is a new way to think about your learning, then read on!

There's knowledge and there's knowledge...

If your lecturers are trying to teach you to build new knowledge, let's try and think a bit more about the kind of knowledge they are trying to teach you to build.

If you think about it, there are lots of different kinds of knowledge. One kind of knowledge is 'Trivial Pursuit' / 'Weakest Link' type knowledge. This kind of knowledge

is itemised. You know lots of different kinds of things - the highest mountain in South Africa, the capital of South Korea and stuff like that. On its own, this sort of knowledge isn't much good for anything apart from winning quizzes.

What it is useful for is putting it together with other bits of knowledge to get something done. For example, if you want to fly to South Korea, it's useful to know the capital is Seoul so you can enter this information into a search engine on a computer to look for a cheap ticket. On its own, knowing Seoul is the capital isn't much use at all unless you combine it with other types of knowledge (like how to use a search engine and how to plan ahead to identify suitable dates) to produce new knowledge - knowledge about what is the cheapest way to get to South Korea in, say, late April. The point, then, is that isolated bits of knowledge aren't much good at all even though in the world outside the university people who have a wide general knowledge and who know lots of 'facts' are often regarded highly.

This is an important point as lots of students often try to remember isolated pieces of knowledge thinking that this is what they will be tested on at university. It might also seem that what you are being taught are isolated bits of knowledge which you simply need to remember for the exam (and promptly forget again!). In History, for example, lecturers might refer to dates and events and, yes, it is important to know that the first democratic election in South Africa took place in 1994. The point of knowing this, however, is to locate the election in time and place - to say how and why such a momentous event became possible or to evaluate what has happened since then as part of a relatively short time period. Simply knowing that the election took place in 1994 isn't much use of all - except in a quiz!

Similarly, in Chemistry there is not much point in simply knowing the whereabouts of an element on the periodic table so you can point it out to others. The point is to be able to use the location of the element to be able to speak about what this means for its relationship to other elements and, importantly, to be able to say where new elements should occur. This is, in fact, how scientists have been using the periodic table since it was developed in the 19th century.

Another kind of knowledge is what could be called 'man in the street' knowledge or 'social media' knowledge. Journalism students often go out onto the street asking people for their opinions of things. They walk along the street with a voice recorder and stop and ask a likely-looking person something like 'What do you think about the decision to build more nuclear power stations in South Africa?' Questions like this are often discussed on social media such as Twitter or Facebook

People in the street or on social media usually respond to questions like that with a 'top of the head' opinion. A response might be 'It's a terrible idea. Nuclear power is really dangerous' or 'I think we must go nuclear if South Africa is to have enough energy for the future'. The problem with statements like that is that they are not carefully examined - people do not interrogate what they say in order to see if the statements they make can be challenged from another angle.

When you think about it, though, this sort of 'top of the head' opinion is really common and often big decisions are taken on the basis of it. In a university, however, opinion-based knowledge isn't what's valued in spite of the fact that your lecturers will often tell you they 'want your opinion' - something I'll return to later.

When the university tries to teach you how to build new knowledge, then, it tries to teach you how to build a very specific kind of knowledge: knowledge which will bear close examination and will hold up to counter claims, which is informed by theories and which is based on *evidence*.

A second important thing about academic knowledge is that it is informed by theory. Theory is like a pair of spectacles. When you put the spectacles on, you

see the world differently depending on what those spectacles are like. Think of a pair of sunglasses. When you put sunglasses on, you see things differently because of the tinted lenses. Think of polaroid spectacles. When you put those on, the glare is reduced and so, for example, you can see fish swimming in water where before you only saw the surface of the water.

Depending on which spectacles you choose to put on, you will see the world in different ways. Theory is like those spectacles. You put theory on and it helps you to see the world differently. This means you may start looking at a problem or an event in the world in a very 'concrete' way. Looking at the world in this way often leads us to asking 'Why don't they?' questions. One such question might be 'Why doesn't the government provide free higher education?' The 'top of the head' answer to that question might then be 'Because they waste money on other things'. Depending on the theory you use to look at the question of funding higher education (that is which theoretical spectacles you choose to put on) you will come up with different kinds of understandings.

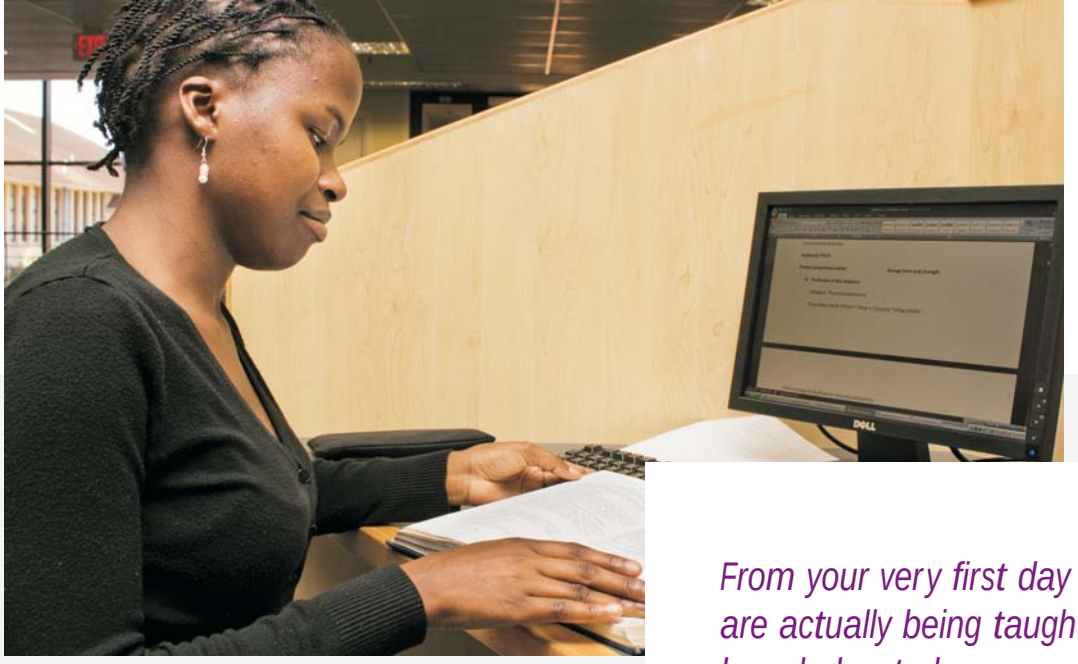
One theory might allow you to see that reduced funding for higher education is a global phenomenon and is related to understandings of getting a degree as a 'private good' - something which will benefit individuals because they will then get better paid employment. Another kind of theory might allow you to see that reduced funding is about power and about limiting access to the 'powerful knowledge' that universities produce and teach students to produce to those who are already powerful.

Even thought it might seem to you that what you are learning in your first year is simply 'stuff' - theories, principles, 'facts', what you are being taught are the *rules* and *methods* for building academic knowledge - knowledge which is valued in the world outside the university because it is valid and can be used to solve real problems and achieve real goals.

4. So that's what it's all about?

How does the university go about teaching you to build new knowledge? This depends on the subject area. In the sciences, you will be required to attend practical classes or 'pracs' where you will work in the laboratory learning the methods of scientific exploration. Here, you will learn to measure accurately and observe keenly. You will also use how to keep accurate records of what you see and measure and to come to conclusions on the basis of what you have done. In 'pracs', then, although it might seem that you are learning about 'something' (for example, the properties of an element, the way a plant is structured and so on) what you are actually learning is the methods scientists use when they go about producing new knowledge. Even more importantly, you are learning that you need to provide *evidence* for any conclusions you come to.

Science isn't only about 'pracs' of course. In lectures your lecturers will teach theories and principles. The point of learning about these is not to simply remember them but rather to see how they allow us to produce more knowledge because of the way they allow us to see the world differently. When we see the world



From your very first day at university you are actually being taught to produce new knowledge, to become a 'knowledge producer' rather than a 'knowledge consumer'.

differently because we are wearing theoretical spectacles,

Using theory to see the world differently is very useful. Once we view something using theoretical spectacles, we can often predict what might happen if certain things or certain conditions were changed. In science, this means that experiments can be designed to test our predictions. When you sit in a lecture, then, the point is not simply to be trying to remember the theory but also to be thinking about how it has been used and can be used to build more knowledge in the subject.

In other faculties, although some subjects might offer 'pracs', many don't and teaching you how to produce knowledge takes another form. One of the first steps in producing new knowledge is identifying a 'gap' - seeing where there is a need for a question to be answered or for a problem to be solved. Having identified a problem to be solved (and this is often easier said than done as identifying *the* problem in a complex situation is often really difficult), a knowledge producer has to begin by finding out what is already known in the area and which theories/principles have been used to answer questions and solve problems in the past. In order to do this, the researcher reads the literature and, as she does so, not only identifies gaps but also comes to make judgements about which theories/principles/approaches are most likely to be useful in answering questions, probing more deeply or finding solutions to problems. All researchers do this regardless of which subject they are working in.

Most undergraduate work (even in the sciences) is about teaching students to do just this. You will be required to read journal articles, chapters from books and even entire books to see how one perspective differs from another and, eventually, to make judgements about approaches the authors you read use and the conclusions they come to. When your lecturers ask you to read and write, therefore, they aren't asking you simply to find out more about a particular area - to learn 'stuff' - rather they are trying to get you to identify differences in perspectives, judge one perspective against another, and so on.

Regardless of what you might think you are doing, from your very first day at university you are actually being taught to produce new knowledge, to become a 'knowledge producer' rather than a 'knowledge consumer'. The sooner you can come to grips with this idea, the sooner you will be learning in *higher* education.

5. The academic jigsaw

I've already pointed out that *academic* knowledge is very different to other kinds of knowledge. One way in which it is different is that it is *incremental* - which means that it is created by building on existing knowledge piece

by tiny piece. An academic knowledge producer is generally looking at a small area and is not trying to make huge headline-making discoveries. Although a single person or a single research team might only be working to try to put one tiny piece of a larger puzzle into place, what is important is that other people in other places all over the world are also working on the same puzzle.

All these people might not agree about the way the puzzle can be completed (or even which bits can go into the puzzle!) and this means that they will argue with each other in their writing and at conferences. This challenge and argument is not done for the sake of it but rather to strengthen knowledge making itself. Having someone point out something you have missed or failed to consider is an important part of making knowledge. In the academic world, this is done by colleagues who respond to presentations and papers presented at seminars and conferences and which are eventually submitted for publication in journals.

In your more senior undergraduate years (and certainly if you go on to do postgraduate work) you will be invited to take part in, or even present your own work at, seminars. Lower down the academic ladder, tutorials start teaching you how to do this. In a tutorial, discussions are intended to allow everyone in the room to have their own thinking challenged as a result of comments made by others and to allow everyone to use their own thinking to challenge that of others.

In your undergraduate work, much of the teaching will be directed at pointing out the main theories, disputes or arguments in a field and at getting you to recognise the people who are arguing and the positions they are arguing from. The point of doing this is not for you simply to remember who's who in the academic world but rather for you to be able to work with opposing perspectives yourself and for you to adopt a position in relation to your own work - something that you will need to do increasingly as you move up the academic ladder.

From the very beginning of your university studies, then, it's important for you to start to try to identify i) the main theories, principles and approaches in the subjects you study, and ii) the big names associated with them. If you don't do this, learning can be a bit like watching a soccer game without knowing which team is playing in which strip and which numbers on each team's shirts denote which player The result is an experience of simply watching people run around a field after a ball without knowing what on earth is going on and trying to remember who kicked or who headed the ball.

Although your lecturers will know the main theories, principles and approaches in their subject area and will certainly know the big names associated with them, they might not be so clear in pointing out what is what and who is who. In a course, then, it might appear that you are simply learning about X and that you have to read something written by a man named van Zyl and a woman named Dlamini. What might be even more confusing is that van Zyl might then seem to be disagreeing with Dlamini when all you wanted was to find out the 'facts' about the subject and remember them for the exam!

Going back to the point of a university being more like a factory producing knowledge rather than a supermarket selling it, what your lecturer is, in fact, doing in the course is not teaching you about the subject area but rather about how knowledge is built within it. In directing your attention to a concept or idea and then giving you two pieces of reading which appear to be saying different things about it, your lecturer is directing your attention to differences of approaches in understanding something and trying to get you to begin to judge which is more appropriate.

As you work through a course, you not only need to think about *what* is being taught (i.e. the 'content' or subject matter) but also about different ways of thinking about or 'approaching' it. You also need to associate the names of the authors you read with these different approaches or ways of 'thinking about'.

A good way to think about what is often termed 'the literature' (i.e. all the stuff you will be required to read) is as a conversation. All the authors of those books and papers you will need to read are, in fact, talking *to* each other. Someone might have begun the conversation centuries ago and, as new work is produced it talks back to previous work and across contemporary work. Academic work does not exist in isolation - it exists in a 'field' or a conversation and your job is to work out what the conversation is about and who is saying what in it.

All this means, of course, that you have to pay lots of attention to all that stuff you need to put in reference lists and bibliographies at the end of your assignments and which your lecturers will get so upset about if you ignore. Academics find reference lists fascinating as they allow them to 'position' an author - to see where they have located themselves on the football field, which strip they are playing in and so on.

In your undergraduate years, your reference list might well look like that of 95% of the rest of the class. As you move higher up the academic ladder and begin to be able to position yourself more clearly, your reference list will become unique as you draw on the work of others as evidence and support for your thinking.

As I have already pointed out, in the sciences, much of your undergraduate work will be about learning the main theories and principles in a given area. The point of learning these is not simply to remember and repeat them but to see how the theories and principles can be used to explain the world around us and to predict the existence of things we can then go on to explore. In the sciences, the theories and principles were developed from observations and measurements of the world. Slowly this work was built up into more overarching theories that can explain the 'small' things we see around us. At a very simple level, the rain cycle and the principles of evaporation and condensation allow us to explain what is happening when it rains. Theories and principles developed in physics allow us to understand why water bubbles when it boils. The point in learning these theories and principles, then, is to allow you to begin to use them in relation to exploring and explaining things that we don't know much about currently.

6. Knowledge claims? What are they?

As I've already pointed out, academic knowledge is built piece by tiny piece over a period of time by many people working in many different places. Your task as an undergraduate is to start learning how to produce this knowledge too.

One very important point about academic knowledge (and which makes it different to many other kinds of knowledge) is that it is evidence-based or *substantiated*. This means that you can't simply say something without giving the reasons why the *claim* you have made in your *statement* is *true*.

Any piece of academic work consists of a series of 'knowledge claims', or statements about what the author believes to be the case, each of which is

supported by evidence. A longer piece of academic writing might consist of a series of smaller claims each of which builds up into a more overall position or statement about the case. Your lecturers will often refer to this as an 'argument' or, sometimes, as an 'opinion'.

The fact that your lecturers might ask you to give your 'opinion' can be very confusing especially when you consider that giving your opinion 'in the street' is entirely acceptable. What you need to remember is that when your lecturers ask for your 'opinion', they are not asking for a 'top of the head' statement or something you 'just think and don't know exactly why you think it' but rather for a carefully considered series of claims all of which are backed up by evidence and which fit together to make a larger statement about something. 'Opinion' in the university, then, is very different to 'opinion' in the street.

The point of writing an essay or assignment, therefore, is not simply to relate the facts, tell the 'story' or 'have your say', but rather to try to respond to the task your lecturer has given you by making a series of statements based on evidence each of which adds up to an answer to the questions or instructions with a bigger, overall statement.

This is true regardless of what you are writing and which subject area you are writing in. It doesn't matter if you are writing a lab report or a history essay, the point is not simply to put 'stuff' down on paper but rather to come to some sort of conclusion which is supported by evidence. Your conclusion is reached step by step - by making a series of smaller statements each of which is supported by evidence.

Importantly - and this is something I will return to later - it is *very* unlikely that you will be able to build an argument (even if it is only an argument leading to the conclusions you come to in a lab report) without a lot of work. When your lecturers write for publication, they will produce draft after draft of their work until they are finally satisfied with what they are arguing.

The majority of students don't do this - they simply hand in the first draft of what they have written. If your lecturers can't build an argument without lots and lots of work and without drafting and redrafting their writing, why should you be able to? This question has really important consequences for the way you go about doing your academic work now you are at university. Your academic work is not like homework at school - something you try to get done and hand in to the teacher because they told you to. Your academic work is about *you* and *your* thinking. It's about your development as a graduate and is something which really requires a lot of effort on your part if you are to get the most out of your years at Rhodes.

7. Evidence? What evidence?

If academic work is about building an argument by developing a series of statements each of which builds on the one before it and each of which is substantiated by evidence, where does the evidence you need to support the statements come from? In science pracs, you will often be required to perform experiments or make observations and record the results of what you do or what you see. These results can then provide the evidence you need to come to conclusions in the final section of your lab report - to explain what happened as you did the experiment and, even more importantly, to explain why it happened.

In areas like commerce or the humanities, you will not usually be working in this way. Instead, the focus of your work in the undergraduate years will be on reading the work of others. As you read, you should not simply be trying to understand and remember what the authors are saying. Rather you should be trying to identify their 'take' on what they are writing about. You would do this by tracking their argument - by identifying claims they make, the evidence they have for those claims and the way those claims build on each other.

In the sort of text-based study typical of commerce and the humanities, when you write an assignment your aim is to provide an argument of your own in response to the question or prompt your lecturer has given you. As I have said, your argument will be built of a series of claims, each of which is backed up with evidence. Your evidence will come from the work of others - in other words, you will use the articles and books you have read as *evidence* for claims you want to make.

Let's try and work with an example to explain this better. The following example comes from history:

> *The 'sugar revolution' has had a far-reaching impact on the course of history, bringing about intercontinental human migrations and new patterns of labour exploitation and human consumption. Critically discuss this statement.*

The instruction for this assignment suggests to me that, in the course in which it was set, lecturers have been talking about the 'sugar revolution' and have directed students to journal articles or books where this is discussed. In all your courses, lecturers will direct you to things you must read usually by providing reading lists in course guides and then by referring to the readings in class.

Many students completely ignore the need to read thinking they can get by simply by going to the lectures and getting hold of copies of PowerPoint presentations made by the lecturer. While going to class and might been enough at school, going to lectures and swotting up on PowerPoints will not allow you to do well at university.

In the course in which the assignment about the 'sugar revolution' was set, different articles and books will have discussed will have been assigned for reading and discussed in lectures and tutorials. Some of this discussion (both spoken in the lectures and written in the articles and books) will have dealt with the idea of human migration. Large numbers of people arrived in South Africa from India, for example, to work in the sugar industry. What did the various authors and the lecturers have to say about this? What claims did they make about human migration - how it affected families, for example, or how it upset gender balances as men moved for work and women stayed at home to look after land? What evidence did they have for those claims? Do all the authors agree or are there differences in what they say?

Similarly, the authors and the lecturers will have said something about the effects of the 'sugar revolution' on human consumption. When people started eating sugar, what changed in their diets and how did this affect health and so on? Again, different authors and your lecturers may have said different things and have provided different evidence for what they say. How does what these different people say agree or disagree/

The instruction for this assignment is 'Critically discuss this statement'. *Your* job as the student writing the assignment is to weigh up what the different people have said and the evidence they have provided to support what they say and to come to a *new* set of claims about the effects of the sugar revolution on migration and consumption. As you make your new set of claims, you use the words of the authors in the articles and the books as evidence to support what you are saying. And this is where *referencing* comes in.

8. Referencing? Plagiarism? What's that?

In your early weeks at Rhodes, you will hear a lot about referencing. Your lecturers will tell you your work must be 'properly referenced' and they will point you in the direction of course handbooks and guides which often contain instructions on referencing. Even more importantly, they will warn you about the dangers of *plagiarising* - of using the words of ideas of others and pretending they are your own - and will tell you of the dire consequences which will result if you are caught plagiarising.

As you listen to these warnings, you might well wonder what all the fuss is about. What is the problem with using the words or ideas of others? Isn't that what learning is about - learning 'stuff'? If this is what you think, remember what was said earlier about different kinds of knowledge and about simply 'knowing stuff' not being valued in the university. What is valued is the ability to make a statement about what you believe to be true and *substantiating* that statement with evidence.The evidence is where the referencing comes in because it is highly unlikely in your undergraduate years that you will have *academic* evidence of your own to support your claims.

Let's go back to the idea of 'in the street' knowledge to explore the idea of *academic* evidence a bit more closely. Suppose a journalism student walked down the High Street asking various people 'What do you think of the performance of Makana Municipality?' One person might say 'I don't think much of their service delivery! The streetlights outside my house have been out of action for months now.'

If we break this down into an *academic* knowledge statement then what we see is that the person is claiming i) Makana Municipality's service delivery is poor ii) *because* the lights outside, say, 23 Mandela Street, have not been working for some months. Remember that *academic* knowledge (unlike opinion) always has to be *substantiated* or held up by evidence. So, let's look at the *quality* of the evidence holding up this particular claim. The evidence is that the lights outside 23 Mandela Street have not been working for some months. How does the fact that the lights outside 23 Mandela Street have not been working compare with the way other lights all over town have been working? Is 23 Mandela Street a rare occurrence or is it common?

Remember that the overall claim is that Makana Municipality's service delivery is poor. What are the reasons for the lights outside 23 Mandela Street not working? Is it simply an oversight? Does the Municipality lack resources (people and money) to ensure that the lights work? Is it a case of simple negligence?

Following on from this, how does the fact that the lights outside 23 Mandela Street have not been working compare with other things the Muncipality might have done? Would a person who had been living without a water supply for all of her life and who had recently been given a tap with running water say that service delivery was poor? Would people who had previously only had buckets and who now had a proper lavatory say that service delivery was poor?

The point being made here is that you need to look at evidence from every direction - upside down, downside up, inside out, outside in - before you can judge its worth. In the case of the example above, even the cursory look at the evidence in the examples provided shows that the evidence if flimsy and certainly

not enough to hold up an *academic* claim.

As I have said over and over again in this booklet, when you write your assignment, essay or lab report, then, you need to think of it as a series of knowledge claims (or statements about what you believe to be the case) each of which is held up or - here's that word again *'substantiated'* - by evidence. And, of course, identifying those knowledge claims and finding the evidence which really will hold them up and not allow them to be knocked down is really difficult!

In summary, when your lecturers tell you about an assignment or a task that you need to complete, they will often tell you that they want your 'opinion'. If you hear this, remember what was said earlier about academic knowledge being different to 'in the street' knowledge. When a lecturer uses the word 'opinion' she does not mean a 'top of the head' opinion. Rather what she wants is a carefully considered response that states what you think about an issue and why you think that. Your thinking about an issue should take the form of a series of claims each of which is supported by evidence. Your 'opinion' will therefore consist of you saying something about the topic or question in relation to what you have read and what you have heard in class. Importantly, though, whatever you say will be backed up with evidence.

9. Ok, Ok, so tell me more about this referencing.

As I've already said, much of the evidence you will use to support the claims you make will come from the work of others. When you use this work, you need to reference it.

A simple exercise might help here. Take a look at the following extract from an academic article published in a journal called *Education as Change*. The complete reference for the article is:

Ramma, L. 2007. 'Rethinking our classrooms: Assessment of background noise and reverberation in schools.' *Education as Change*, 11(2):115-130.

The extract is taken from the introduction to the article on page 1.

> *Traditional methods of teaching in most school classrooms involve the spoken word as the primary mode of communication. On average, up to 60% of classroom learning activities involve either listening or participating in verbal communication with the teacher or other learners (Sutherland & Lubman, 2001:2) which means the better the learner can hear, the more s/he is able to learn (Smith, 2002:2).*

Let's begin by separating out claims and evidence. In the extract, there are two claims. Find them and write them below:

Claim One:

.....

.....

.....

.....

.....

.....

Claim Two:

.....

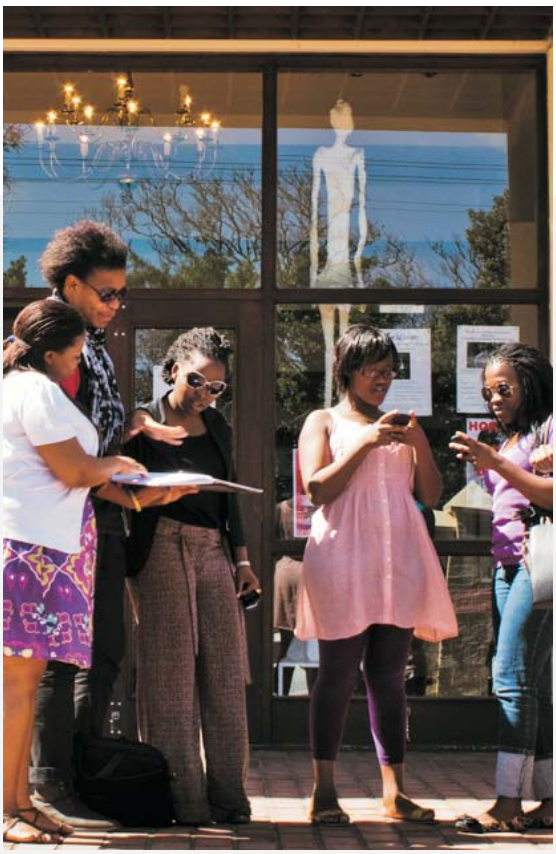
.....

.....

.....

.....

.....



Now, find the *evidence* to support each claim:

Evidence for Claim One:

.....

.....

.....

.....

.....

.....

Evidence for Claim Two:

.....

.....

.....

.....

.....

.....

Laying out the claims and evidence in tabular form might help to show how this piece of academic knowledge making works more clearly:

Claim	Evidence	Where does the evidence come from?
1. Traditional methods of teaching in most school classrooms involve the spoken word as the primary mode of communication	On average, up to 60% of classroom learning activities involve either listening or participating in verbal communication with the teacher or other learners	From the work of Sutherland & Lubman - two researchers who presumably measured learning activities in classrooms. The reference (Sutherland & Lubman, 2001:2) tells us this.
2. the better the learner can hear, the more s/he is able to learn	Research which presumably measured hearing ability with learning	Work done by Smith and reported in Smith (2002:2)

Now look at the in-text references : i) (Sutherland & Lubman, 2001:2) and ii) (Smith, 2002:2). These references are exact - in a 'coded' form they tell us exactly where to find the evidence for the knowledge claims (more of this later). Any reader of the article from which the extract was taken could go and check the evidence supporting Ramma's claims by finding the original published work in which it was reported.

Let's try another example. Again, I will use an example from an educational journal as education is something familiar to all students. The following extract comes from an article which explores first year students' attendance at lectures in a South African university. The complete reference for the article is:

Van Schalkwyk, S., Menkveld, H. & Ruiters, J. 2010. 'What's the story with class attendance? First year students: Statistics and perspectives.' *South African Journal of Higher Education*, 24(4):630-645.

The influence of technology on teaching and learning is another burgeoning field of study and there is concern in many circles that the introduction of a learning management system (e.g. Blackboard Vista) leads to a decrease in attendance patterns. Different studies provide varying responses to this concern (Grabe 2005; Yudko, Horokawa and Chi 2008). What these and other studies have shown, however, is that in keeping with earlier comments on motivation and attitude, students who make use of online notes and who attend classes regularly outperform their peers. In this context, recent work is calling increasingly for adopting a hybrid approach, combining different forms of face to face teaching and elearning events that are supported by online interaction (Riffell and Sibley 2004; Yudko et al. 2008).

As you did with the first extract, begin by finding the claims made by the authors in this extract and write them below:

Claim One:

.....

.....

.....

.....

.....

.....

Claim Two:

.....

.....

.....

.....

.....

.....

Claim Three:

.....

.....

.....

.....

.....

.....

Claim Four:

.....

.....

.....

.....

.....

.....

Now, find the *evidence* to support each claim:

Evidence for Claim One:

.....

.....

.....

.....

.....

.....

Evidence for Claim Two:

.....

.....

.....

.....

.....

.....

Evidence for Claim Three:

.....

.....

.....

.....

.....

.....

Evidence for Claim Four:

.....

.....

.....

.....

.....

.....

Once again, laying out the claims and evidence in tabular form might help to show how the piece of academic knowledge making in the extract works more clearly:

Claim	Evidence	Where does the evidence come from?
1. There are concerns that learning management systems lead to a reduction in students attending classes	Not explained directly	Evidence can be found in the work of Grabe (2005) and Yudko, Horokawa & Chi (2008).
2. Different pieces of research provide different responses to this concern (i.e. we can assume that some would agree with it and some would dismiss it)	Not explained directly	Evidence can be found in the work of Grabe (2005) and Yudko, Horokawa & Chi (2008).
3. Students who make use of online notes and who attend classes regularly outperform their peers	Not explained directly	Evidence can be found in the work of Grabe (2005) and Yudko, Horokawa & Chi (2008) and other studies which the authors do not mention.
4. There is a need to combine face-to-face teaching with elearning.	Not explained directly	Evidence can be found in the work of Riffell & Sibley (2004) and Yudko *et al.* (2008)

The following example comes from an article written in the field of Entomology. The article was written by a Rhodes University student, who had completed a piece of research, and Professor Martin Villet of the Department of Zoology and Entomology, who guided or 'supervised' her research. The reference for the article is:

Williams, K. & Villet, M. 2014. 'Morphological identification of *Lucilia sericata*, *Lucilia cuprina* and their hybrids (Diptera, Calliphoridae).' *ZooKeys*, 420: 69-86.

The use of maggot debridement therapy (MDT) in South Africa has gained interest in the past decade (Williams et al. *2008, Du Plessis and Pretorius 2011). The identification of the maggots used for this therapy remains an issue, as most medical doctors are not adequately trained in entomology to correctly identify the flies (Williams* et al. *2008, Tantawi* et al. *2010).* Lucilia sericata *is the most commonly used species (Sherman et al. 2000) but it is often misidentified as* L. cuprina. *These two species are also used in forensic entomology (Louw and van der Linde 1993, Smith and Wall 1997, Anderson 2000, Oliva 2001, Clark* et al. *2006, Day and Wallman 2006)...*

As you did with the other examples above, begin by identifying the claims made in the extract and write them below:

Claim One:

Claim Two:

Claim Three:

Claim Four:

Now, find the *evidence* to support each claim:

Evidence for Claim One:

Evidence for Claim Two:

Evidence for Claim Three:

Evidence for Claim Four:

PULL QUOTE

Once again, laying out the claims and evidence in tabular form might help to show how the piece of academic knowledge making in the extract works more clearly:

Claim	Evidence	Where does the evidence come from?
1. Over the past ten years, scientists have become interested in the use of maggots to clean wounds.	Not explained directly	Evidence can be found in the work of Williams *et al*. 2008 and Du Plessis & Pretorius 2011.
2. Medical doctors are not trained in entomology so the identification of maggots which can be used in this form of therapy can be a problem.	Not explained directly	Evidence can be found in the work of Williams et al. 2008 and Tantawi *et al*.
3. A species called *Lucilia sericata* is used most often in the therapy although this species is often confused with another called *L.cuprina*.	Not explained directly	Evidence can be found in the work of Sherman *et al*., 2000.
4. *L. Sericata* and *L. cuprina* are the two species most often used in forensic entomology.	Not explained directly	Evidence can be found in the work of Louw & van der Linde, 1993; Smith & Wall, 1997; Anderson, 2000; Oliva 2001; Clark et al. 2006 and Day & Wallman 2006)

Finally, here is one more example from science, this time taken from an article written by Rhodes University scientists including the world famous Distinguished Professor Tebello Nyokong.

The complete reference for the article is:

Modisha, P., Antunes, E. & Nyokong, T. 2014. 'Photophysical properties of zinc tetracarboxy phthalocyanines conjugated to magnetic nanoparticles.' *Journal of Nanoscience and Nanotechnology* 14: 1-9.

Photodynamic therapy (PDT) is a promising method for treating different types of diseases and has been used in ophthalmology, oncology, dermatology and for cardiovascular diseases.[1,2] Phthalocyanines (Pcs) and their metal derivatives (MPcs) have found applications in many areas including PDT of cancer3-5 and in nonlinear optics.[6,7] On the other hand, magnetic hyperthermia (HPT) refers the killing of cancer cells by the heat generated by the magnetic nanoparticles following the application of an external AC magnetic field.[8,9]

1. *P. Babilas, M. Landthaler, and R. Szeimies, Eur. J. Dermatol. 16, 340 (2006).*
2. *S. Ogura, K. Tabata, K. Fukushima, T. Kamachi, and I. Okura, J. Porphyrins Phthalocyanines 10, 1116 (2006).*
3. *I. J. Macdonald and T. J. Dougherty, J. Porphyrins Phthalocyanines 5, 105 (2001).*
4. *R. Bonnett, B. D. Djelal, and A. Nguyen, J. Porphyrins Phthalocyanines 5, 652 (2001).*
5. *R. Edrei, V. Gottfried, J. E. Van Lier, and S. Kimel, J. Porphyrins Phthalocyanines 2, 191 (1998).*
6. *D. Dini, M. Barthel, T. Schneider, M. Ottmar, S. Verma, and M. Hanack, Solid State Ionics 165, 289 (2003).*
7. *D. Dini and M. Hanack, The Porphyrin Handbook: Physical Properties of Phthalocyanine-Based Materials, edited by K. M. Kadish, K. M. Smith, and R. Guilard, Academic Press, USA, (2003), Vol. 17, pp. 22-31.*
8. *A. P. R. Mary, T. N. Narayanan, V. Sunny, D. Sakthikumar, Y. Yoshida, P. A. Joy, and M. R. Anantharaman, Nanoscale Res. Lett. 5, 1706 (2010).*
9. *L. Zhao, M. Huo, J. Liu, Z. Yao, D. Li, Z. Zhao, and J. Tang, J. Nanosci. Nanotech. 13, 741 (2013).*

This article uses a different referencing system to those from which the previous examples were taken. In this article, rather than the names of authors and the dates of the publication appearing in brackets, a number is used to indicate the reference that appears in a numbered list at the end of the article. It is not the referencing system itself which is important, however. Rather the important thing is to see how the work of others is used to support the claims made by Modisha, Atunes and Nyokong.

Once again, begin by identifying the claims made in the extract:

Claim One:

.....

.....

.....

.....

.....

.....

Claim Two:

.....

.....

.....

.....

.....

.....

Claim Three:

.....

.....

.....

.....

.....

.....

Now, find the evidence to support each claim:

Evidence for Claim One:

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

Evidence for Claim Two:

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

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

Evidence for Claim Three:

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

Now check your identification of claims and evidence by comparing what you wrote above with the information in the following table:

Claim	Evidence	Where does the evidence come from?
1. Photodynamic therapy is a promising method for treating various types of diseases.	Not explained directly	Evidence can be found in the work of Babilas *et al.* 2006 and Ogura *et al.*, 2006.
2. Phthalocyanines (Pcs) and their metal derivatives (MPcs) are used in the treatment of cancer and nonlinear optics.	Not explained directly	Evidence can be found in the work of Macdonald *et al.* 2001; Bonnett *et al.*, 2001 and Edrei *et al.* 1998; Dini *et al.*, 2003a and Dini *et al.*, 2003b.
3. Magnetic hyperthermia (HPT) refers the killing of cancer cells by the heat generated by the magnetic nanoparticles following the application of an external AC magnetic field.	Not explained directly	Evidence can be found in the work of Mary *et al.*, 2010 and Zhao *et al.*, 2013.

If you think carefully about the exercises above, identifying claims and the evidence that supports them, a number of really important points about academic knowledge making can be made:

1. As I have already said, your lecturers will not ask you to read articles and books simply so that you can repeat what is in them but rather so that you can make statements or claims of your own *in relation to questions they set you as assignments* on the basis of your reading of those articles and books. A lot of students misunderstand the point of the reading they are asked to do at university and write assignments and essays that simply repeat what they have read. This sort of writing results in what I would call lecturers having a 'So what?' experience - a lecturer reads a student's work which simply repeats (often as a series of quotations) what s/he has read in the recommended books or articles and thinks 'So what? I already know this because I've read the articles and books already!' If you are going to avoid giving your lecturer a 'So what?' experience, as a student you will need to focus on identifying the claims you want to make and using your reading as evidence for those claims.

2. Academic knowledge making is very exact and allows readers to go and check the claims that authors make. In the extracts above, exact references are provided in the text. These in-text references then guide the reader to the reference list at the bottom of the article that gives even more information about the book or article that the author is using as evidence. Providing evidence in this meticulous way allows your claims to be questioned and this ensures that academic knowledge making is rigorous and that the claims really can stand up to challenge. When your lecturers are talking to you about the need to reference, it may seem as though they are talking about technicalities. What they are actually talking about, however, is the process of academic knowledge making that they want you acquire.

3. The explanation of the evidence can vary. In the first extract, the author explained the evidence for her knowledge claims more thoroughly than in the second where the authors simply referred their readers to the relevant research. As a rule of thumb, the more 'junior' you are as a student, the more likely it is that your lecturers will want you to explain your evidence thoroughly rather than simply referring them to the academic article or book where the evidence appears. This is because they will want to check your understanding and thinking to see how well you can use evidence to build the argument they want you to make.

10. Some advice

One of the best things you can do as a student, especially at the beginning of your first year, is to practise finding knowledge claims and the evidence that supports them in actual academic work.

Try to identify an academic journal related to one of the subjects you have chosen to study. Find an issue of that journal (either in hard copy or online) and make a copy of one of the articles in it. You can then do one of the following things:

1. Highlight all the references on one or two pages of the article. Work out how those references are being used to support claims made by the authors.

2. Work from the other direction - find the claims first and then identify the evidence that supports the claims (as you did in the exercises earlier in this section).

Time spent doing this sort of exercise (and it's a really good idea to do this with a friend who is studying the same subject as you) will teach you how knowledge making works in the university and will allow you to see what you need to do when you start writing your academic assignments.

PULL QUOTE

11. But the referencing!

Although the most important thing to understand about referencing is the way it works in making academic knowledge, many students are very worried about the technicalities of doing it.

What is important to remember here is that you will learn how to reference with practice. Any experienced student or academic knows how to write a reference and, when she reads a reference list, can read the 'code' to see whether the reference refers to a book or a journal article. In the references for the extracts from the education articles provided earlier, for example, the names of the journals in which the articles appear are written in *italics*. The titles of the articles themselves appear in inverted commas.

Ramma, L. 2007. 'Rethinking our classrooms: Assessment of background noise and reverberation in schools.' *Education as Change*, 11(2):115-130.

Van Schalkwyk, S., Menkveld, H. & Ruiters, J. 2010. 'What's the story with class attendance? First year students: Statistics and perspectives.' *South African Journal of Higher Education*, 24(4):630-645.

This is just one referencing style, however, and some departments will specify other styles. The extract from the article written by Modisha *et al.*, on photodynamic therapy provides an example of another referencing style. What is important is that you follow the style your department tells you to follow in the course guide or handbook *consistently*. You may need to use different styles in different departments and this will mean you will need to consult the guide or handbook and follow it carefully to make sure you get the style right. This will take time at first but you will soon get the hang of the different styles and, with some care and attention, will soon be able to reference confidently.

Although the technicalities of referencing are important, what is more important is understanding how knowledge claims are made and how referencing works in making those claims. An experienced academic or student can literally 'feel the need' for a reference as they write. If you pay attention to the processes of knowledge making outlined in this section, you too can develop that ability over time.

12. And plagiarising?

Plagiarism involves taking someone else's words or ideas and pretending they are your own and it is *the* academic 'sin'. Students often plagiarise accidentally or they may be silly enough to plagiarise because they haven't left enough time to work on an assignment.

The University has a Policy on Plagiarism (available at http:// www.ru.ac.za/media/rhodesuniversity/content/law/.../plagiarism_policy.pdf) which outlines the procedures used when plagiarism is detected in students' work. Penalties for plagiarism can range from a reduction in marks, the withdrawal of a Certificate of Due Performance (or 'DP') to exclusion from the University. Even if only a mark penalty is applied, plagiarism will be recorded on your academic record and will be there for others to see throughout your university career.

A more important reason not to plagiarise deliberately than fear of a penalty is that copying someone else's work is a form of academic dishonesty which robs *you* of the chance to learn and develop yourself as a student. There is little point in coming to university if your only aim is to slide by making as little effort as possible to learn and develop yourself. A higher education is a real privilege that is possible for only a small proportion of the population. Throwing that privilege away by fooling around and not taking your studies seriously is a waste of your time and your, or your sponsors', money.

Some departments will require you to submit your written work via the online learning platform RUConnected and a service called Turnitin. Turnitin is a text matching service - a service that matches your assignment against a huge database of other pieces of writing including internet sources. This database will include work submitted by more senior students. If Turnitin finds a match between your work and work in the database, then it marks it in a report that is available for your lecturer.

Some departments allow you to use Turnitin for yourself to see if any of your work appears as a match. If this opportunity is available to you, it's well worth taking up as the Turnitin report will allow you to redraft your work to get rid of the matches and reference appropriately. Working with a Turnitin report is also an excellent way to develop your understanding of referencing

Sometimes a lecturer will not need a Turnitin report to spot plagiarised work. Any experienced reader is able to note the differences between the 'expert' text lifted from a book or a journal article and a student's more hesitant attempts to produce academic writing. When lecturers spot these differences, they often type a sentence or two of the work which they doubt is yours into Google and, if it is plagiarised, it will most likely come up as a match. Other clues for lecturers that work is plagiarised is when it does not flow - when the ideas do not link with each other and build up into a coherent argument of claims and evidence.

Your lecturers are experts at reading academic articles and books - they are also experts at reading students' assignments! The likelihood of plagiarised work being picked up by your lecturer is very high even if you are in a large class. And, if your lecturer does pick up plagiarism she or he will be very, very upset because you are transgressing an academic value system - a system that places enormous worth on what you can do with your intellect and your ability to think critically and creatively.

Some students go to enormous lengths to deceive. We are aware, for example, that some students insert symbols into the middle of words in white font so that they do not appear on the computer screen. These symbols then prevent Turnitin or other search engines finding an exact match. Text with hidden symbols looks odd to the naked eye, however, and although spaces in the middle of words might once have been attributed to poor typing, tutors and lecturers are now aware of this sort of attempt to deceive and will check the font colour.

When all is all, plagiarism is not worth it not only because you are likely to be caught but because you are cheating yourself of what a university such as Rhodes can give you. You will probably only have one chance at an undergraduate degree - make the best of it and get as much from your experience here as you possibly can.

12. A legal point about Turnitin

When you submit work to Turnitin, the text matching service discussed above, a copy of your work may be kept on the Turnitin server to allow for the work of future students to be checked against your work. This is done to prevent students copying the work of more senior students and submitting it as if it were their own.

The following message appears on the page where you upload your work:

By submitting my essay to this online assignment feature in this RUConnected course, I give my consent that my essay be added to the institutional database of essays on the Turnitin server.

The University might also require you to sign a similar declaration at some point. This declaration is noted here to draw your attention to the fact that your work may be saved on a commercial server for future use.

13. How do I find knowledge claims?

So far this booklet has argued that learning at university is not about learning 'stuff' but is rather about learning how to make academic knowledge which has been described as a claim supported by evidence.

Making knowledge claims in practicals in the sciences is different to making them in other areas. In science practicals, you will observe, measure and calculate and use your observations, measurements and calculations to support claims or conclusions you then come to. In other areas, we have seen how you need to use the work of others, published in books and journal articles, to support a series of claims or statements you make in response to an instruction or question that your lecturer provides.

This might sound all well and good but actually identifying what you want to say, the claims that you want to make, can be really difficult - especially when your lecturer has asked you to read three journal articles and a chapter from a book to write your assignment! So, what can you do to help yourself find

those claims you need to make?

By now you have probably developed a set of well-established study habits - habits that got you through school and allowed you to get into university. While these have served you well until now, it's worth thinking about developing new ways of working, new ways of reading, writing and learning that are likely to allow you to do the sort of things I have been trying to convince you that you need to do in this booklet.

Coming to Rhodes University has already involved a lot of change. You've probably travelled from a different town or even a different country. You are with new friends in a new place. Are you up to a bit more change? I hope so, because changing your study habits could be the most important thing you do now you are here in Grahamstown!

14. A new place, a new approach to studying?

Many students think of reading as a process of remembering what the book says. When they read, their focus is on identifying main points and either highlighting or underlining those points or making notes about them. As the reading progresses, more and more important points are identified until the notes are nearly as long as the original chapter or article or almost the entire text is underlined or highlighted!

Another problem with the read-and-take-notes or read-and-highlight methods of dealing with the articles and books you will be asked to read is that, every time you pause to make a note or highlight, you run the risk of losing the gist of what you are reading and having to go back and re-read the text to pick up on your understanding. Reading using these methods also takes much longer than it would if you were not taking notes.

When you think about it, focusing on remembering isn't a very productive way to go about identifying things you want to say, claims you want to make in response to the lecturer's question or instruction. Focusing on remembering can also lead you into plagiarising accidentally as you make notes which are very close to the original text and then, somehow, those notes are transferred into your assignment. There are better ways to read at university, one of which involves keeping a reading journal.

14. A reading journal - what's that?

You can keep a reading journal on a computer or in hard copy. If you want to keep hard copy, it's probably a good idea to buy an exercise book for each subject you are studying. This will allow you to organise your work better. On a computer, open a folder for each subject.

Begin by writing a complete reference for whatever you are going to read at the top of the page or computer screen. Write the reference as you would write it in the reference list at the end of an assignment following the instructions in the course guide or handbook the department has given to you. It's really important to do this - the last thing you want to do is to have to search for the reference later. If you are hoping to go on to do postgraduate work, you will be

working with literally hundreds of references as you write a thesis or dissertation. Adopt the good habits now which will serve you well as you move up the academic ladder.

When you have written the reference, you can go and sit somewhere comfortable. As you are not going to take notes, you don't need to sit at a desk. Now read the article or chapter. You don't have to read the entire article or the entire chapter. It's perfectly acceptable to split up a longer piece of reading into shorter 'bursts' of reading. Try to identify how much you might be able to read in the time you have available and set yourself the goal of completing it.

Importantly, if you are going to keep a reading journal, your focus as you read should *not* be on remembering but rather on *understanding* what the author is saying. As you read, try hard to identify the claims they are making and the evidence for those claims. Remember, we have said that academic knowledge is about making claims and then supporting those claims with evidence. You need to try to sort out the claims from the evidence as you read.

Academic arguments are often complex and difficult to understand particularly when you are new to a subject area. As your knowledge and understanding of a subject area develops, it will become easier to read. It's quite normal to 'struggle' at the beginning of your university career so keep on going. You may need to re-read sections of the text and go back to check your understanding but keep going. Developing the ability to read in an academic subject area is a bit like physical exercise. When you start, the going is tough but, over time, it gets easier and easier.

When you have finished the article or chapter (or the section of the chapter or article), it's time to write your reading journal. So, what does that involve?

Writing a reading journal entry is like writing a 'Dear Diary' entry in a personal journal. The aim is to write what you are thinking, what you experienced as a reader. The following questions will help you get going:

- What did I like about what I've just read? What was really interesting?
- What didn't I like about what I've just read?
- How does what I've just read agree with other things I've read or what the lecturer and tutors have said? (and here it can be useful, once your journal is underway, to flick back through previous entries to remind yourself)
- How does what I've just read disagree with other things I've just read or what the lecturer and tutors have said? (once again, previous entries in your journal will help you with this question)
- How does what I've just read relate to the assignment I need to write?

If you use questions such as these to guide your entry in your reading journal, you will be forced to move into a level of thinking which goes beyond mere remembering and repeating. The journal entry will help you to find out where you stand on an issue or question (and, remember, the point of academic work is to make a series of claims each of which are held up with evidence) and it will also help you to make connections across the literature.

15. Freewriting

Another way to help find those knowledge claims and the evidence which supports them is to use freewriting as a means of focusing your thinking and capturing ideas on a page.

Freewriting is often recommended in 'teach yourself how to write' books as a means of 'freeing up' your thinking. Here's how it works:

1. Begin by identifying a question that will guide your writing. Once you have had some experience with freewriting, you will find it really easy to identify questions to guide your writing. In the beginning, try asking yourself questions like 'What do I understand by x?' or 'How does x relate to y?'

2. Set yourself a time limit. The wonderful thing about freewriting is that you don't have to write for a long period. The books recommend 3, 5 or 7 minutes. The short period is because freewriting requires you to really focus your thinking on the question you have set for yourself. A longer time period might mean that you would lose this focus. The short time period is also important for another reason related to motivation. If you know you have to study for a long period, it's easy to put off beginning. Freewriting is short and relatively painless so sitting down to do it is not too difficult. Writing for a short period also means that you can fit some freewriting in whenever you have some time in a busy day. If you are waiting for a friend to get ready before you go out, there's no reason why you shouldn't do some freewriting. You can freewrite while you are waiting for a lecturer to begin a class and even while you are waiting for the kettle to boil!

3. When you have set your question and your time limit, sit down and *write without stopping*. The idea is that you focus your mind entirely on the question and write whatever comes into your head. As you write, don't worry about spelling, punctuation or grammar - the only person who is going to read your freewriting is you. You can write in any language you choose - it doesn't have to be in English. The important thing is to keep focus and keep writing. Imagine that you are trying to empty your head onto the piece of paper - this is what freewriting is about.

4. When the time limit is up (and you can set your phone or your watch to beep to tell you - you don't want to lose focus to check the time) stop writing. It doesn't matter if you are in the middle of a sentence or a word, simply stop. At this point, you can leave your writing - you can go out with your friend or listen to your lecture.

5. At some point, however, you need to come back and read what you have written. When you read your freewriting, you may find that you think 'What a load of rubbish! Why did I write that?' This is a good response to freewriting because you are identifying false trails in your thinking. At other times when you read your freewriting, you may think 'Now that's a good idea - I need to follow that up'. This sort of response to your freewriting can guide further thinking and, importantly, further reading.

Freewriting is such a short activity you have nothing to lose by trying it. In the last forty years or so there has been lots of research on writing - research which has looked at what people do as they actually write. One of the most significant insights to come out of this research was that writing and learning are linked - that writing is the premier tool for learning. Free-writing is a really easy way to get into using writing as a tool for learning. There's nothing to lose by trying it regardless of how wacky it might seem. Go on, try it!

16. More about writing

Being able to write is critical to your success at university. Regardless of how well you can speak or make oral presentations, ultimately you will be assessed on the basis of your writing in exams and assignments. One of the most common complaints from

lecturers, however, is that their students *can't* write.

Learning to write academically takes years of practice. Although you will have written assignments and examinations at school, writing at university is *different* because it requires you to make new knowledge (by making claims and supporting those claims with evidence) rather than simply demonstrate your understanding of existing knowledge.

At first glance, academic writing can seem very formal and full of big words and long, complicated sentences. The best academic writing does not set out to be deliberately complicated, however. Good academic writers aim to say what they want to say as simply and clearly as possible. They key point, however, is that they have something to say - they are not simply writing things down for the sake of writing them and trying to appear clever and sophisticated as they do this! What they have to say, as this booklet has stressed over and over again, is an overall argument which is built by putting together smaller claims each of which is backed by evidence.

Producing a good piece of academic writing is not easy - even your lecturers find it difficult and will need to write and rewrite the work they produce over and over again. The following steps will help you produce a good piece of writing - and a first class pass for that assignment!

1. Write for yourself first! Although your lecturer will be the ultimate reader (and judge) of your writing, it's not a good idea to immediately begin to write with her/him in mind. Remember that learning at university is about learning to produce new knowledge and that your writing will therefore consist of a series of knowledge claims each of which is supported by evidence. First you have to find those claims and the evidence which supports them. If you try to write those claims and evidence *for yourself* (without worrying about the complicated sentences and long words) you are more likely to be able to find the claims which will stand up to your lecturer's questioning.

   Keeping a reading journal and freewriting are both ways of writing *for yourself*. However, there's nothing to stop you beginning your assignment by writing a draft which is only intended for your eyes. This means that you can write in a way which is familiar to you and using words with which you are comfortable. As you write, try to focus on *arguing a case* - on making statements and on supporting those statements with evidence from your reading. Focus too on the way the statements link up with each other.

2. Write for your lecturer later. When you have an idea of what it is you want to argue, it's time to move into writing for your lecturer. When you write for your lecturer, your aim is to 'silence' her/him to the extent that s/he cannot object to what you are saying. Remember that your lecturer is not interested in your ability to simply repeat what you have read in books and articles - your lecturer has read the books, has read the articles and knows what they say. Your aim is to make a series of claims and to support those claims with evidence in a way which will not allow your lecturer to knock down either the claims or the evidence.

   As you write, try to imagine what your lecturer could say in response to what you are saying. What are the objections to what you are saying? If there are objections, can you deal with them?

17. Getting the claims right

As you start to write for your lecturer and begin to imagine what she or he might say in response to your claims, think about trying to match the evidence to the claim. Do you have enough evidence to support your claim or is your claim 'wobbling' at the edges?

Sometimes students make claims which apply to all people, all situations everywhere. If you make a claim like this, can it be knocked down or would it be better if you limited your claim in some way? Think about the difference between a claim which says:

> *Learning in South African classrooms is affected by noise levels.*

and a more limited claim which says:

> *In many/some South African classrooms, learning may be affected by high levels of background noise.*

In the second example, the *extent* of the claim is limited by the words 'many' or 'some' and the likelihood of what is being claimed by the word 'may'.

Academic writing is full of words like 'many', 'some', 'may', 'might', 'could' and so on which limit the claims made by authors. Think about how you could use some of these words to limit some of the claims you might try to make. Even better, go back to that journal article I suggested you should work with earlier. Find the claims in the article. Are any of those limited by some of the words above? Think about what the limitation means and how the author is signalling to the audience that this is not a claim which applies to all people and all situations everywhere.

Looking at academic texts in this 'close' way, will help you to become a better academic writer, so this is an exercise which is well worth doing.

18. Getting it right

When many students talk about academic writing, they often note the long words and complicated sentences.

While it is true that academic writing often does require the specialised use of vocabulary, this does not mean that you must use the most sophisticated, 'academic' words. Rather, use words which you are sure you understand and can control. As your lecturer introduces new words which are specific to the subject, make a note of them and look out for them as you read and listen to follow-up lectures. By paying attention to these words, you can come to understand them fully and use them in your own writing.

Sometimes, very ordinary words are used in specialised ways in academic work. Be aware that a word you are familiar with in everyday life might mean something much more precise when it is used academically.

Undergraduate students often try to define terms using definitions from the dictionary. It is unlikely that a dictionary definition, however good, will capture the specialised meanings of an academic term. As a rule of thumb, therefore, it's a good idea to avoid dictionary definitions when you write. A much better strategy is to see how academic authors define a term and then use their definition, quoting and referencing it carefully.

Pay particular attention to the spelling of words which are new or unfamiliar - there is little that will annoy your lecturer more than sloppy spelling of words which are specific to the subject you are studying. The same applies to the names of the theorists your lecturer introduces to the class. I have seen the name 'Hobbes' spelt 'Hobb', 'Hobbs' and even 'Hopps' and the lecturer in the class in which students did this got more and more angry every time he came upon a new variation!

The academic convention is to refer to people by their family names only unless they are really 'giants' in the field. While you could refer to 'Albert Einstein', it would not be appropriate to refer to 'Sipho Ndaba' or 'Joe Atkinson'. Rather you would use 'Ndaba' or 'Atkinson' in an academic text.

While the best academic work says things simply and concisely, it is always quite 'formal'. Words like 'gonna' or abbreviations used on cell phones are completely inappropriate for academic work. Before you submit your assignment check it carefully. Use the spell check on your computer to see if that picks up anything strange bearing in mind that what it will identify as incorrect will depend on whether you set it to check UK or USA English. Preferably, set the spell check to UK English.

It's often a good idea to read your work aloud to yourself before you hand it in as it is surprising how often you can 'hear' mistakes in your work you cannot see on a screen or sheet of paper. Reading your work aloud may also help you to spot sentences which are too long or which do not link and flow.

While lecturers will often overlook some language errors, particularly if the writer is using English as an additional language, they will not forgive sloppy and careless work or work which draws on colloquial English. If you are using English as an additional language, read your work carefully before you hand it in and see if you can spot any mistakes. When mistakes are pointed out to students, they usually see what is wrong immediately. The key is to spot any errors before your lecturer has to.

Generally you will be asked to hand in work written on a computer either in hard copy or by submitting it electronically. Make sure you have enough time before the deadline for submission either to print your work (bearing in mind that there are often queues for printers in the public computer labs on campus) or submit it via Turnitin on RUConnected. Mishaps often happen right at the end of the submission process. Don't make yourself known to your lecturer as someone who is always explaining away accidents!

19. And so to work

This booklet has tried to introduce you to thinking about learning at university in ways which may be unfamiliar to you and to suggest some things you could do to study and write differently.

Try not to be daunted by the idea of learning at university. You have shown you have the ability to succeed here (the University would not have accepted you if not) and now you have to make good on that promise by working hard and, even more importantly, really trying to take part in all the learning opportunities open to you. When you go to lectures and the lecturer asks a question, have a go at answering it. Prepare for tutorials by doing pre-reading and, once in the group, really do your best to share your thinking with the others. When your class has an online space on RUConnected, visit the forums and contribute to the discussions going on there. A University like Rhodes is an enormously exciting place so make the most of your time here!