

9

THINKING

"I don't think I understood what I said either"

Few people set aside 'time to think'. Indeed, refusing to go out on the grounds that 'I have to stay in and think about some really difficult grammar,' will not assist your street cred. Stick with 'washing my hair' or 'I want a quiet night in with a video'. For most people the effective stimulus to thinking is conversation and discussion. Being asked: 'What is your position on semiotics?' or 'How do you view St-Exupéry's use of the machine metaphor?' can stimulate thoughts you didn't know you had.

Language students are expected to apply their already well-developed thinking skills to a series of academic tasks and activities, to make reasoned judgements and arrive at conclusions about language-related issues. It is possible to pursue a languages degree at a rather superficial level, learning and re-presenting information. This is called surface learning. The aim of a university education is to practise the skills that move beyond this level to deeper learning, to being active in questioning, relating ideas and opinions to other parts of your degree and to other subjects, and developing one's ability to inter-relate evidence and draw valid conclusions. This links to the ideas of deep reading (p. 64).

Your intellectual sophistication should mature during a degree course, but it is sometimes difficult to know what this might mean in practice. To convey some aspects of this development UTMU (1976) takes Bloom's (1958) list of cognitive skills for university students, and unpacks them by assigning a series of associated verbs (Figure 9.1). More detailed criteria are outlined in Figure 9.2. Most universities and many departments publish similar statements in university and department handbooks, start of year lectures and briefings. Think about

●	Knowledge	Write; state; recall; recognize; select; reproduce; measure.
	Comprehension	Identify; illustrate; represent; formulate; explain; contrast.
	Application	Predict; select; assess; find; show; use; construct; compute.
	Analysis	Select; compare; separate; differentiate; contrast; break down.
	Synthesis	Summarize; argue; relate; précis; organize; generalize; conclude.
↓	Evaluation	Judge; evaluate; support; attack; avoid; select; recognize; criticize.

Figure 9.1 Bloom's (1958) skills (from UTMU, 1976).

Level or Year	Knowledge <i>Broad knowledge and understanding of language and related areas. Fluency in subject vocabulary.</i>	Analysis <i>Problem-solving ability. Evidence of understanding. Ability to apply concepts to novel situations.</i>	Synthesis <i>Ability to bring together different facets of material, and to draw appropriate conclusions.</i>
1	Demonstrate a basic understanding of core subject areas, happy with language terminology. Demonstrate a knowledge of appropriate supporting analytical techniques (use of primary and secondary literature, bibliography, PC).	Apply analytical techniques through class examples. Understand that there may be unique or multiple interpretations of any issue. Appreciate the relative validity of results.	Be able to handle material that presents contrasting views on a topic and develop personal conclusions.
2	Demonstrate a comprehensive knowledge of specific subject areas. Be able to question the accuracy and completeness of information. Appreciate how different parts of the subject inter-relate.	Apply language methodologies and theories to individual situations and critically examine the outcomes. Understand that it may be appropriate to draw on multi-disciplinary approaches to analyse and interpret individual problems.	Locate and comment on diverse material, add personal research observations and integrate literature based information with personal ideas and opinions.
3	Demonstrate a deep understanding of a number of specialist subject areas and methods. Appreciate the provisional state of knowledge in particular subject areas.	Understand how to solve problems or offer interpretations with incomplete information, how to make appropriate assumptions. Develop appropriate research hypotheses.	Appreciate the breadth of information and interpretations available. Identify and tap into key elements of the material. Produce coherent discussions and reports.
MA	Demonstrate a broad, deep understanding of specialized subject areas and methods. Understand where this dovetails with the subject in general. Understand the current limits of knowledge.	Demonstrate an ability to propose solutions to problems involving appreciation of different approaches, gaps and contradictions in knowledge or information.	Be able to collate materials from a wide range of language and non-language sources. Integrate personal research materials in a coherent, thoughtful and professionally manner. Be able to work to a specified brief.

Figure 9.2 Skills matrix for language students.

<p>Evaluation</p> <p><i>Ability to review, assess and criticize one's own work and that of others in a fair and professional manner.</i></p>	<p>Creativity</p> <p><i>Ability to make an original, independent, personal contribution to the understanding of the subject.</i></p>	<p>Professionalism</p> <p><i>Ability to act as a language practitioner and researcher, to present arguments in a skilled and convincing manner and to work alone or in teams.</i></p>
<p>Draw conclusions from results and identify the relative significance of a series of results. Evaluate the accuracy and reliability of information, interpretations and conclusions.</p>	<p>Offer original comment on language-related material. Display or present information in different ways.</p>	<p>Be effective in planning and using time and language resources, including libraries and computer packages. Present information, written and orally, to a high standard.</p>
<p>Review existing literature and identify gaps, appraise the significance of results and conclusions.</p>	<p>Develop original, independent research skills, interpret information and offer comment. Be able to display information in a variety of ways.</p>	<p>Confident use of computer packages for analysis and presentation. Confident group worker and collaborator in research activities. Produce written work to a high professional standard.</p>
<p>Critically appraise information, evidence and conclusions from own and others' work.</p>	<p>Gather new information through personal research, draw personal conclusions and show where these insights link to the main subject areas.</p>	<p>Be able to set objectives, focus on priorities, plan and execute project work to deadlines. Produce well structured and well argued essays, dissertations and reports. Demonstrate fluency in oral and electronic communications.</p>
<p>Perform independent critical evaluation of information, evidence and conclusions, including reliability, validity and significance. Be able to form and defend judgements in the light of contradictory information.</p>	<p>Offer insights into the materials under discussion that are independent of information immediately available. Propose investigative approaches to language-related problems using various approaches as appropriate.</p>	<p>Make confident, effective and professional presentations, answer detailed questions thoughtfully and clearly. Produce substantive reports that are well structured, well reasoned, well presented and clear. Work effectively as a team member and team leader.</p>

where these statements match your experience. You are expected to progress from knowledge-dominated activities, to those with increased emphasis on analysis, synthesis, evaluation and creativity.

This chapter is a very minimal excursion into 'thinking'-related activities. It is very brief and partial, ignoring most of philosophy and the cognitive sciences. It concentrates on three elements – critical thinking, reasoning, and questions to encourage and focus your thinking. If you feel your thinking activities could take a little more polishing, then think through the ideas here. Like bicycle stunt riding, thinking gets better with time, not overnight. Thinking is tough.

9.1 WHY DO YOU THINK?

Cogito ergo sum: I think, therefore I am (Descartes)

Thinking is used to acquire understanding and answers. Adjectives used to describe quality thinking include reasoned, clear, logical, precise, relevant, broad, rational, sound, sensible and creative. Steps in quality thinking involve:

- Deciding on the objective (understanding a concept, recognizing the issues).
- Defining the background assumptions.
- Acquiring information and evidence of a suitable standard to build up a reasoned argument.
- Reasoning or inferring from the available information to draw logical conclusions.
- Considering the consequences of the results.

How good you are at thinking is a matter for personal development and self-assessment. When tackling multi-dimensional language problems, make notes while thinking, plot your thoughts on spider diagrams, and record connections and links as they occur to you. Ideas float away all too easily.

9.2 CRITICAL THINKING

Critical thinking involves working through for oneself, afresh, a problem. This means starting by thinking about the nature of the problem, thinking through the issues and striving for a reasoned, logical outcome. During the process you need to be aware of other factors that impinge, where bias may be entering an argument, the evidence for and against the issues involved, and to search for links to other parts of your language course. Essentially, critically evaluating the material throughout the process. Mind maps can be a helpful way of putting ideas on paper and finding the links between them (Buzan and Buzan 1995, **Try This 2.5**).

Being critical entails making judgements on the information you have at the time. It is important to remember that being critical does not necessarily imply being negative and derogatory. It also means being positive and supportive, commenting in a thoughtful way. A balanced critique looks at the positive and negative aspects. Some students feel they cannot make such judgements because they are unqualified to do so. Recognize that neither you, nor your teachers, will ever know everything – you are making a judgement based on what you know now. In a year's time, with more information and experience, your views and values may alter, but that will be a subsequent judgement made in the light of different information.

Discussion is a major thinking aid, so talk about language and related issues. It can be provocative and stimulating!

Where does **intellectual curiosity** fit into this picture? Research in language studies is about being curious about concepts and ideas. You can be curious in a general way, essentially pursuing ideas at random as they grab your imagination. We all do this. More disciplined thinking aims to give a framework for pursuing ideas in a logical manner and to back up ideas and statements with solid evidence in every case.

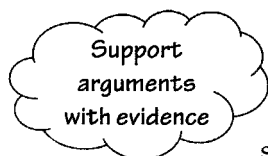
What to avoid. Uncritical, surface learning involves listening and noting from lectures and documents, committing this information to memory and regurgitating it in essays and examinations. The 'understanding' step is missing, and the rewards will be missing too. Aim to be a deeper learner.

9.3 REASONING

Strong essay and examination answers look at the issues, develop robust arguments, draw inferences and come to conclusions. Judgements need to be reasoned, balanced and supported. First think about the difference between **reasoned** and **subjective reactions**, and reflect on how you go about thinking. Subjective reaction is the process of asserting facts, of making unsupported statements, whereas reasoning involves working out, or reasoning out, on the basis of evidence, a logical argument to support or disprove one's case (Figure 9.3).

Subjective statement	Reasoned statement
'Max Frisch portrays the Swiss as xenophobic'	'In <i>Andorra</i> (1961), Frisch explores a community under threat. The inhabitants of his fictitious Andorra respond in a variety of ways – aggressive, protective, defensive – to invasion by a Nazi-style army in pursuit of a victim.'

Figure 9.3 Examples of subjective and reasoned statements.



Create examples of reasoned rather than subjective statements with **Try This 9.1**. In your academic thinking and communications, avoid making emotional responses or appeals, assertions without evidence, subjective statements, analogies that are not parallel cases, and inferences based on little information – unless you qualify the argument with caveats.

TRY THIS 9.1 – Reasoned statements

Either write a fuller, reasoned version of the four subjective statements below, OR pick a few sentences from a recent essay and rewrite them with more evidence, examples and references.

1. Camus is too depressing an author to be let loose on the young.
2. The cost of breaking up the USSR has crippled the new states over the past 10 years.
3. The Austrians have very right-wing tendencies.
4. The Chinese economy is booming at the expense of the West.

9.4 THINKING IN A FOREIGN LANGUAGE

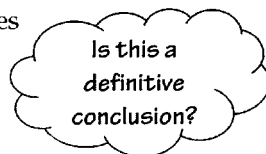
Becoming confident enough to construct complex statements in your foreign language takes a lot of practice, but you can make a start and build on it whenever you like. The next time you go to the supermarket for the week's groceries, try talking to yourself (under your breath, unless you are an incorrigible exhibitionist) in your L2. If this works – i.e. you don't get any silly answers – extend the process until you are both thinking and responding mentally to what is going on around you in the foreign language. This works much better abroad, of course, but it *can* be done in the UK as well. The trick is to project yourself mentally into the foreign environment and to respond accordingly. When you get to the point where your first thought when you wake up is in the foreign tongue, you've cracked it!

Next, try it in lectures. The basic rule is, take notes in the language of delivery, L2 lecture = L2 notes. But practise making L2 notes in L1 classes occasionally. Don't worry, if this proves too hard or the material is too important to risk, you can always revert to English for a bit.

The important thing is to exercise the brain cells in the foreign language. Whether you do this by listening to the radio, watching TV or chatting up the waiter/waitress in your local restaurant, is immaterial. As we are forever saying, just keep practising!

9.5 QUESTIONS WORTH ASKING!

Being a critical thinker involves asking questions at all stages of every research activity. These questions could run in your head as you consider language issues:



- What are the main ideas here?
- Are the questions being asked the right ones or are there more meaningful or more valid questions?
- What are the supporting ideas?
- What opposing evidence is available?
- Is the evidence strong enough to reach a conclusion?
- How do these ideas fit with those found elsewhere?
- What is assumed?
- Are the assumptions justified?
- What are the strengths and weaknesses of the arguments?
- Is a particular point of view or social or cultural perspective skewing the interpretation?
- Are these seemingly 'objective' definitions truly objective?
- Is the information of an appropriate quality?
- Are causes and effects clearly distinguished?
- Is this a personal opinion or an example of intuition?
- Have I really understood the evidence?
- Am I making woolly, over-general statements?
- Is the information relevant? Keep thinking back to the original aims and argument. You can make statements that are clear, accurate and precise but if they are irrelevant they do not help. Off the point arguments or examples distract and confuse the reader, and may lose you marks.
- Is the argument superficial? Have all the complexities of an issue been addressed?
- Is there a broad range of evidence? Does the answer take into account the range of possible perspectives?
- Are the arguments presented in a logical sequence? Check that thoughts and ideas are ordered into a sequence that tells the story in a logical and supported way.

- Which examples will reinforce the idea?
- Can this idea be expressed in another, better way?
- What has been left out? Looking for 'gaps' is an important skill.
- Is this a definitive/true conclusion OR a probable/'on the balance of evidence' conclusion?
- What are the exceptions?

Take a little time to think and reflect before jumping into a task with both feet. Having completed a task or activity, take a few minutes to reflect on the results or outcomes. **Try This 9.2** and **Try This 9.3** are two exercises which develop critical skills. Both provide frameworks for thinking, evaluating and synthesizing language material.

TRY THIS 9.2 – Gutting an article

Select one article from a reading list, any article, any list! Make notes on the:

Content:	What are the main points?
Evidence:	What is the support material? Is it valid?
Counter case:	What are the counter-arguments? Has the author considered the alternatives fully?
Summary:	Summarize relevant material from other sources that the author might have included but omitted.
How well did the author meet his stated objectives?	

TRY THIS 9.3 – Comparing articles

Take three articles on the same or related topic from any module reading list. Write a 1000 word review that compares and contrasts the contributions of the three authors. (Use the guidelines from the previous exercise.) Write 250 words on where these three articles fit with material from the module.

This seems like a major effort, but it really will improve your comprehension of a topic, so treat it as a learning exercise rather than an isolated skills exercise. Pick three articles you are going to read anyway. It is another approach to reading and noting.

In practice, few lecturers would argue that a logical perspective is the only way to deal with questions. This leaves room for you to express your aesthetic opinions within an essay, if they are relevant and appropriate.

Can you improve the quality of your thinking alone?

Yes, but it takes practice. You will probably become more disciplined in your thinking by discussing issues regularly. This is because the act of talking around an idea sparks off other ideas in your own mind. When someone else voices their point of view, you get an insight into other aspects of the problem, whereas thinking of arguments that run against your own position is difficult. A discussion group might:

- Start by summarizing the problem.
- Sort out objectives to follow through.
- Share data and evidence – the knowledge element.
- Share views on the data, ‘I think it means ... because ...’
- Work out and discuss the assumptions the data and evidence are making.
- Discuss possible implications; evaluate their strengths and weaknesses.
- Summarize the outcomes.

A good reasoner is like a good footballer; s/he becomes more adept by practising.

Where to think?

Thoughts and ideas arrive unexpectedly and drift off just as fast unless you note them. Take a minute to recall where you do *your* thinking. There are almost as many varied answers as people, but a non-random sample of individuals in a lecture (N=67) shows favoured locations include: in bed at 4am; while walking to work; jogging; swimming; working out in the gym; cleaning the house; and cutting grass! There is certainly a common element, in that thinking can be productive if you are otherwise engaged in an activity that allows the mind to wander in all sorts of directions without distractions such as telephones and conversations. The majority of students who offered ‘walking’ and ‘the gym’ as their best thinking opportunities are evidence of this. Writing down ideas is vitally important, but is incompatible with note-making. Recognize this problem by taking 10 minutes over a drink after exercise, or a couple of minutes at a bus stop, to jot down thoughts and plans. This turns aerobic exercise into an effective multi-tasking activity by incorporating a ‘thinking’ element.

Avoiding plagiarism

Good thinking habits can minimize your chance of inadvertently plagiarizing the work of others. Get into the habit of engaging and applying concepts and ideas, not just describing or reporting them. That means thinking around the ideas to find your own contexts and alternative examples. Make sure you include your own thoughts, opinions and reflections in your writing. Be prepared to draft and redraft so that the thoughts are in your own language – and acknowledge your sources. Leave time to link ideas coherently. Finally, put the full reference for your citations at the end of each piece of written work.

Thinking and understanding involve a commentary in your head. Writing a summary in your own words is a good way to check you understand complex ideas. Doing it in your foreign language is a linguistic reinforcement exercise as well. Ask: 'Do I understand this?' at the end of a page, chapter, paper, tutorial, lecture ... and not just at the end.

9.6 REFERENCES AND FURTHER READING

Bloom, B.S. (ed.) (1956) *Taxonomy of Educational Objectives: 1 Cognitive Domain*. London: Longman.

Buzan, T. and Buzan, B. (1995) *The Mind Map Book*. (rev. edn.) London: BBC Books.

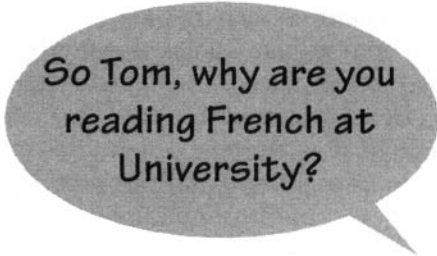
UTMU (1976) *Improving Teaching in Higher Education*. London: University Teaching Methods Unit.

Van den Brink-Budgen, R. (1996) *Critical Thinking for Students: How to Use Your Recommended Texts on a University or College Course*. Plymouth; How To Books.

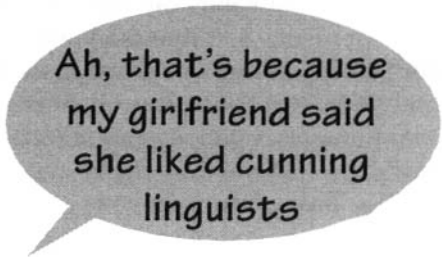
To get started with mind mapping see also:

Mind Mapping FAQ (1999) [online] <http://world.std.com/~emagic/mindmap.html>

Russell, P. (1999) Advantages of Mind Maps [online] <http://www.peterussell.com/Mindmaps/Advantages.html> (This site tells you how to draw them.)



So Tom, why are you
reading French at
University?



Ah, that's because
my girlfriend said
she liked cunning
linguists