Students – where are they “at”? 

- Students come believing everything that is in print:
  - Start small – are there some things that are more believable than others – what sorts of texts/journals/magazine, etc., can be used to exemplify this?
- Do students know what learning at university is?
  - Learning and questioning existing knowledge.
  - Contributing to the development of new knowledge.
  - Describing what you have learnt in “your own voice”.

Thinking (believing vs questioning) and Active Reading.

Students need to go beyond ‘accepting everything they read or hear as fact’, by:

- learning the steps for developing criteria for evaluation,
- understanding that everyone writes from a particular perspective and
- understanding that critiquing different types of research requires different criteria for evaluation.

What skills the students already have:

- Students need to know that critical thinking involves critiquing, not criticising. Do they know the difference?
- The word critical is related to criteria – if we are critiquing, we are evaluating something against some criteria.
- Evaluating is related to the word value – so when we are critiquing we are considering the value of something against some criteria.
- Students can’t know how to start thinking critically unless they have the criteria (the questions to ask). What criteria?

Eg for a research paper:

Two types of criteria – detailed and big picture

Students will best understand detailed criteria first:

- Did the author explain his/her aims clearly in the abstract or introduction?
- Did the author review the background adequately (look at the literature reviewed)?
- Did the author show a need for his/her research (are there problems pointed out in the literature?) – so what does the author hope to achieve by the paper (aims).
Was the research strong or robust?

- What was the methodology (quantitative or qualitative)
- Were the research instruments piloted, informed by other research, validated, included (or not) in an appendices?
- What sort of sampling was involved – a large scale population, a selected sample, inadequate sampling?
- What sort of percentage responded (for a survey or questionnaire)?
- Are the results statistically significant?
- Who collected the data (interviews)? Would there have been any researcher bias?

Students now have to learn how to stand back and look at the paper in its broader context.  
Next they need to learn about “Big picture” criteria

- When and where was the research done?
- Who was the paper written for – who is the reader audience?
- What does it contribute to the field of (e.g., marketing) research – how will it contribute to/change (e.g. marketing) practice?
- What were the limitations of the research?
- Does the research have external validity?
- How confident are the writers about the research (look at the discussion and for words like suggest, probably may, could, implies, etc).

Eg - a theoretical paper

Where to get students to start? Papers describing empirical research are a good starting point for students. Once they can critique to an empirical research paper, then they can move onto more theoretical papers.
But do they know what a theory is?

Classroom strategy – Understanding theory

Describe a common theory.
Provide students with a definition of a theory. Here are some simple ones from Wikipedia:

- “A body of descriptions of knowledge is usually only called a theory once it has a firm empirical basis [ie, lots of research]”

- A theory “is supported by many strands of evidence rather than a single foundation, ensuring that it probably is a good approximation if not totally correct”

- A theory “is tentative, correctable and dynamic … rather than asserting certainty. It allows for changes to be made as new data is discovered or new application are found for it”. [http://en.wikipedia.org/wiki/Theory]

Get students to identify the strands of evidence for the theory you have provided.
Get students to discuss the ways the theory could be further supported and the ways that it could be refuted.

What is a theory?

A good way to describe a theory is as related to the word theatre – what happens in a theatre – people do things on a stage and the audience ‘looks down on them’ – they see the ‘big picture’ while the players on the stage do not. The people in the audience are the researchers or theorists looking at everything the people on the stage (consumers in real life situations, the participants in research, etc) are doing and making generalisations based on what they see.

Now some people in the audience may have paid for expensive seats, while others paid for cheap seats and have quite a different view or perspective on the stage. We might say that these people will have a different theoretical perspective. They will see what is on the stage from a different angle or point of view.

So how does one think critically about a theory?

- Is it well supported by ‘a firm empirical base’ (lots of research)?
- Is the supporting research strong?
- Is there enough research?
- Does the theory apply well to the situations that it has been used for or does it need changing?
- Can the theory be expanded to cover other situations?
Communication Skills (articulating ideas, reflecting, prioritizing, identifying, predicting, synthesizing, questioning)

Are there cultural barriers to discussion and evaluation?
Do students have the same understanding of critiquing as you do?

Cultural conceptualisation

- Cultural categories (e.g. food, family)
- Cultural schemas
- Event schemas (What is a lecture?) (what is a tutorial?)
- Role schemas (What a ‘teacher’ does) (What a student does)
- Proposition schemas (abstractions which act as models of thought and behaviour. Eg, ‘An essay includes an argument’).

Cultural categories and taxonomies are not all shared across cultures

- Kinship schemas
  - Extended family
  - Nuclear family
- Social schemas - respect
  - Respect for the teacher
  - Respect for the published word
  - Respect a mentor’s knowledge
  - Respect for the law
- Social schemas – criticism
  - Criticism of government
  - Criticism of leaders
  - Criticism of parents
  - Criticism of expert knowledge
- Categorisation of time
  - Explicit/implicit time measurement
  - Deadlines
  - Time management
  - Arriving on time
The Language of Discussions – Conversation gambits

You may need to give your students some language that they can use to participate in discussions. Here are some suggestions. These might need to be explicitly taught.

The following list is provided to groups for a discussion. The appropriate use of each gambit earns a point for the group.

**How to express reservations**
- Yes, but…
- Yes, but don’t forget…
- That would be great, except…
- That’s a good idea but…

**How to introduce counter-arguments**
- Even so,
- That may be so, but…
- That’s probably true, but…
- Possibly, but…

**How to challenge**
- I don’t think you fully appreciate the fact that…
- I wonder if your view is justified in the light of…

**How to interrupt**
- Sorry, but…
- Excuse me for interrupting, but…
- Can I add here that…
- I’d like to comment on that please.
- Can I say something here?
- I’d like to ask a question if I may.

**How to return to the topic**
- Anyway,…
- In any case,…
- To get back to what I was saying,…

**How to add information**
- There are other considerations. For example…
- If we look at it in another light…
Quescussions

Quescussion is a type of discussion that is conducted entirely in the form of questions. It was developed by Prof. Paul Bidwell of the English Department at the University of Saskatchewan where he has used it with great success in the teaching of poetry. It has proved to be very useful in handling a variety of subjects, even or perhaps especially heatedly controversial ones, and works across a wide range of class sizes. In large classes, it is particularly useful because it allows a lot of students to make brief contributions without interventions by the professor, and because the exercise can be put to several uses. It works like this:

i. **The instructor explains the rules of quescussion**, which are:
   - Everything said must be in the form of a question.
   - Participants must wait until four (this number can vary with the size of the class) other people have spoken before they can speak again.
   - No statements in the form of questions (e.g., "All professors wear polyester, don't they?")
   - If someone makes a statement, the rest of the class is to shout "Statement." The exercise is self-policing.
   - No nasty ad hominem questions directed to other speakers (e.g. "Isn't that the kind of question that a megalomaniacal fascist would ask?") Typically, these turn out to be merely disguised statements and are inadmissible on those grounds too. This rule is often unnecessary, but will come into play if the subjects discussed are ones that people might have strong feelings about, such as politics, abortion, euthanasia, or religion.

ii. **The instructor then sets out the subject for the quescussion**. This can be:
   - a **problem** (relatively complex ones are best, but obviously this has to be suited to the class) to be solved or confronted, which could be ethical, philosophical, social, psychological, literary, mathematical, or scientific;
   - a carefully formulated **provocative question or statement**;
   - a text of appropriate length and difficulty to be analyzed or discussed.

iii. **The Quescussion** itself, the length of which will vary with the task that has been set, but which will rarely last beyond ten minutes and is often shorter. Classes have to learn how to do quescussion well, and you can expect some silences between questions when you first use this exercise. Don't worry: they're thinking hard, and don't succumb to the temptation to end the quescussion at the first 10 or 15 seconds.
silence. One of the impressive things about this exercise is how quickly it climbs up a taxonomy of the cognitive domain and encourages higher order thinking and quite difficult questions. Further, people will try out ideas they would hesitate to express under other circumstances, largely I think because everything is tentative, provisional, when it is expressed in the form of a question. The fact that a heated exchange between two class members cannot develop because of the rule calling for intervening speakers also helps in this regard.

iv. **The follow up.** How you use this exercise can really vary, from doing nothing to doing a great deal.

- If you choose to do nothing, and sometimes that will be the right thing to do, you have at least introduced your class to a range of questions on this subject.

- If you want to address some or all of these questions, you can follow Prof. Bidwell's practice, tape-record or videotape the quescussion, transcribe all of the questions, and present them to the class as the focus for future discussion.

- Alternately, you or your designate can record the questions on the board or overhead, grouping them if desired, and use them as a springboard to a traditional type of discussion or to a lecture that deals with at least some of the questions and/or issues that arose.

http://www.uwo.ca/tsc/tlc/lc_part3c.html#02

**Discussion Strategies**

Discussion techniques are particularly important for a leader or facilitator to generate discussion, to control it and to prolong it (e.g., through active listening).

**Starting Strategies**

- Don’t be vague. Questions such as What do you think? Would anyone like to react? Who wants to start off? Are not focussed enough for beginning students.

- Don’t fear silence – it’s not always mental inertia or disengagement

- Make some ground rules on which every agrees

- Start with something concrete – “Is there any image that came to mind when reading this paper?” – “What is the relationship between that image and what you read – that is, why did it come to mind?”

- Start with a sentence completion task (The question “What I would most like to ask the author is…” “The idea I object to most is…”)

- Find meaningful quotes – give one to each group to explain the relevance to the text – What did the author mean by this quote?
**Strategies for keeping the discussion going**

- Asking for more information (What data is that claim based on? How does the author support that point of view? What evidence would you give if someone questioned your interpretation?)
- Asking for clarification (Can you put that another way? Do you have a good example of that?)
- Connecting to others (Is there any connection between what you are saying and what … said before? How does your comment fit with what … said? Does that contribution add to what we have already said?)
- Hypothetical questions (How would this methodology work with the case we talked about in the lecture? What might have happened if … had not used Advertising Company XYZ?)
- Summary and synthesis questions (What remains unresolved in this research? What three main conclusions are the authors drawing? Where did you find these in the paper?)

**Strategies for good listening**

- Try to understand the speaker’s point of view. Check your understanding for the benefit of the other students (they may not understand) and for the benefit of the speaker (who may not have articulated the idea well) (eg, So what you are suggesting is that…?)
- Make connections between the students’ contributions at the end of the class
- Learn to recall what your students have said previously – keep a diagrammatic map of the discussion.
- Be aware of the speakers’ level of confidence and be prepared to help.
- Use attentive body language, nodding, *Mm*, smiling and looking at the speaker.
- Concentrate on what the student is saying and not on what you want to say to correct him/her.

**Discussion Activity**

*How could the use of such questions be incorporated into lectures/tutorials where there are large numbers of students?*

**Conceptual Clarification**

- What do we already know about this?
- Can you give me an example?
- Can you rephrase that?

**Probing Assumptions**

- Please explain why…?
- You seem to be assuming…?
- What would happen if…?
Probing Rationale, Reasons and Evidence

Why is this happening…?
What do you think causes…?
How might this be refuted?

Questioning Viewpoints and Perspectives

What alternative ways are there of looking at this?
What is the difference between…and…?
Why is…better than…?
But if that happened, what else would happen as a result?

Probing Implications and Consequences

What are the implications of…?
Why is…important?

Making Links

How does …fit with what we learned before?
What is the connection between ….?
How is this similar/different to/from…?
What theory or idea that you have read about could explain this issue/problem?

Classroom Strategy – “Stand where you stand”

- Give students materials that contrast strongly to begin with – subtle academic arguments can be lost of many students. – Give them two short passages to read arguing two different points of view of a controversial issue – get them to take a stand and support it.

- Can the student recognise parts of an argument – statement (claim/stance) – support (evidence) –sometimes there are hints (because, therefore, etc). Can students recognise and use the words of argumentation? Some review of how the argument is structured in the two passages might be needed.

- Students spend a few minutes writing down their position and draw support from the essays.

- The tutor places four signs around the room STRONGLY AGREE, AGREE, DISAGREE, STRONGLY DISAGREE

- Students stand in front of the sign that most closely reflects their opinion

- Students at each sign construct and present an argument in support of their position

- Next students have the opportunity to change places if they have been convinced otherwise.

- Finally students can evaluate the learning process – did it help them form a point of view and support it – How? Why?
Critical analysis

We often ask students to critically analyse – a double disaster – they may not know what it is to critique – and they may not know how to analyse. They need to know that:

- All sort of things can be analysed.
- We cannot be critical unless we can analyse.

Eg, an event

To analyse an event we need to see it as occurring over time, we need to look at its internal structure

- Things lead up to the event (causes) – what are they?
- Things occur during an event – what are they (implementations)?
- Things happen as a result of an event (effects) are they successful, unsuccessful, pointless, etc.

Eg, a process

To analyse a process we need to see it as occurring over time, we need to look at its internal structure

- What are the steps in the process?
- Are they sequential?
- Is the sequence the best one or could the steps be reordered?
- Are there things that should occur simultaneously to make the process work better?

Eg, a theory (as above)

To analyse a theory, we need to look at its internal structure

- What set of generalisations or principles is the theory made up of?
- What research are these generalisations based on?
- Is it robust, valid research?
- Does the theory need further testing?
- How could that be done?
### Scaffolding an approach to critical reading

The following task provides an approach to reading journal articles (an activity to do in a tutorial group)

<table>
<thead>
<tr>
<th>Students have the most difficulty in finding where the relevant information is. Steps 1 and 2 scaffold this process. Each group can prepare a chart when responding to their questions to display to the rest of the class. Step 3 requires more independent thinking and Step 4 requires critical evaluation:</th>
</tr>
</thead>
</table>
| **Step 1** Pose a set of basic comprehension questions to begin with (detailed questions) for groups to answer.  
Eg. What sort of paper is it – empirical, theoretical, polemical? What is being tested and with what hypotheses? How was the data collected? What sort of data is it? What measures/instruments were used? |
| **Step 2** Pose some more in-depth questions for groups to answer.  
Eg. What were the authors’ general aims? What was the theoretical approach? Were the hypotheses supported? How did this result support the general aim? What does the research contribute to the field of study? What were the limitations of the study? |
| **Step 3** Ask each group to write a short summary of the article. |
| **Step 4** Set group discussion questions (big picture questions)  
Eg. How does the paper contribute to knowledge in the field? Of what value is this paper for marketing managers? Does the paper definitely prove that marketing resources are linked to competitive advantage? Did the research contribute to the theory or refute it? |
Figure: Critical thinking scaffolding

**Scaffolding critical analysis**

**Student handout**

**Step 1: What is the writer’s Research Question/Aim**

**What are the author’s conclusions?**

**Step 2: What evidence does the author provide?**

**What do you think?**

Evidence

Evidence

Evidence

Evidence

Evidence

Evidence

Evidence

Evidence
<table>
<thead>
<tr>
<th>Facilitator’s Evaluation Sheet</th>
<th>Yes</th>
<th>No</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Did people listen and pay attention when others were speaking?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Did participants understand everything?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Did people ask for verification or clarification when they didn’t understand?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Did people interrupt appropriately?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Did participants attempt to link to what others had said?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Was everyone participating or did a few individuals dominate the discussion?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Did the participants compromise?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Did participants have problems expressing their views?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Did you notice any personal mannerisms or behaviour that you felt was improper?</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Write your other comments and observations below:
Demonstrating thinking in writing (developing a voice), responding to text (engaging with controversy) - Writing critically.

Expressing a critical view in writing and developing an argument framework to ‘carry’ the point of view through the essay is very difficult for many beginning students. Students often report on literature in their writing by simply summarising what each person has said:

X studied…
Y studied…
Z comments on….

There is no evaluation, no evidence of the student’s understanding, no student ‘voice’ which links, contrasts, evaluates, etc:

X studied…
Y studied…
Z comments on….

Student voice????
**Writing critically**: Students need learn how to embed what they read into an over-arching framework which contains their own critical evaluation (their voice). It’s knowledge management:

### Factors affecting

Factors affecting… have been studied by Neville (1993), Davidson et al (1997) and Brady & Hill (1999). These scholars pointed out that:

1. Neville’s study focused on …

   Brady & Hill, on the other hand, were able to demonstrate that…. The findings of Brady & Hill support earlier research by Davidson et al (1997).

   Davidson et al found that ….

### An alternative approach

An alternative approach has been taken by several research teams and this has resulted in…..

For example, Hudson et al (2001) applied the theory to … and demonstrated that …

Similarly, Ferguson’s (2001) findings suggest that …. 

Research in this area, therefore, provides conflicting results. Firstly, it has been shown that…. More recent research, however, …. 
Writing critically

A lack of critical thinking is also evident in the writing of conclusions. How many times do we get a summary instead of a conclusion?

Conclusions draw previous ideas together. In your conclusion you:

- Demonstrate similarities (between aspects of the data, e.g., between study one and study two, between your research and the literature)
- Demonstrate differences (between aspects of the data, e.g., study one and study two, between your research and the literature)
- Demonstrate anomalies (inexplicable or inconclusive findings)
- Relate findings to a particular context (social, historical, theoretical, industry, management, etc)

Conclusions include words like:

- Therefore..
- As a consequence..
- In contrast to..
- As a result..
- Compared with..

Conclusions use the present tense (you are still ‘doing’ things with the data):

- … can be contrasted with..
- .. is similar to the results of x’s 1997 study
- As a consequence, the findings of this research demonstrate…
- The findings of this study suggest a correlation between … and …

Conclusions provide a place for the writer’s own thoughts (eg, In conclusion, ... We have seen above that....).
Conclusions are dependent on the type of text that you have written. Ask yourself:

- What conclusions can be drawn from the text?
  
  Eg: “In conclusion, we can assume that learners of English as a second language will have particular difficulty with some types of ellipsis. These include...”

- Are there different points of view to be drawn together?
  
  Eg: “Finally we can see there are several conflicting points of view in this area. On the one hand, ..... while on the other hand,...... Currently, there seems not be any possibility of the parties compromising on.... However, it is possible that some consensus might be achieved with....”

- Are there two sides to an argument that need to been drawn together?
  
  Eg: “In conclusion the benefits of ... appear to far outweigh its disadvantages. This favours consideration of policy changes in relation to... However, it is always possible that proponents of ... will maintain their resistance to ...”

- Are there comparisons of things that need to be preferred/recommended, one over the other?
  
  Eg: “Upon considering the evidence, we would recommend a course of action which supports improved access to English language classes because the alternative action would create difficulties in terms of equity and social justice....”

- Are there issues which you do or don’t agree with?
  
  Eg: “On the basis on my own experience of working in a similar region, I would support the views of .... because....”

- Is there a moral to the story which needs to be highlighted?
  
  Eg: “One might suggest that there is something to be learned from the experience of ... as outlined above. This might be....”

Summaries

Summaries tell us (again) what you have done. They recap (in brief) on the previous text. Summaries include words like:

  - In the above chapter…; Then…; Next…; Finally…

Summaries are in the past tense:

  - Several statistical tests were carried out...; Participants were selected from…; Four separate focus groups were conducted and yielded ...; This research has focused on..
Writing assignment questions to generate critical thinking

Take care with instruction words:

- “Describe” and “outline” do not promote critical thinking.
- “Discuss” – what does this mean? Lacks guidance. Too vague. It usually means everything! Especially “quote” and “discuss the above statement…”.
- Critically analyse – confusing – what does this really mean – critically evaluate component parts?
- Critically evaluate – against what criteria – does the student know this? Can the student develop the criteria?
- Compare – more explicit – greater chance of promoting independent thought:
  Eg: Compare the application of theory XYZ in the work of Smith (2004) and Jones (1999).
  Eg. Compare the implications of Smith’s (2001) research and Jones’ (2003) research for marketing managers.

Take care with lengthy additional instructions.

Eg. Include in your essay evidence of 10 refereed journal articles…..Students are expected to access the databases....

- Does this hinder independent critical evaluation?
- Wouldn’t students think more if they were limited to Smith and Jones?
- Is the energy spent on reading widely to the detriment of thinking critically?
- Are we allowing students time to think?
- Are we really trying to ‘force’ students to read by incorporating it into the writing requirements.
- Are we asking for problems (unoriginal, uncritical thought, plagiarism)?
Writing critically (continued): The language of critical writing is dependent on appropriate use of reporting verbs.

Reporting Verbs

- **Textual statements**
  - states
  - notes
  - challenges
  - points out
  - names
  - denies
  - used in **present tense** to express published form of research (ongoing knowledge)

- **Mental beliefs**
  - believes
  - thinks
  - focuses on
  - considers
  - prefers
  - implies

- **Research**
  - investigated
  - quantified
  - obtained
  - observed
  - found
  - measured, calculated
  - used in **simple past tense** to describe actual research processes and activities, provides the particulars behind generalizations from the literature

- **Comparing**
  - corresponds to
  - accords with
  - contrasts with

- **Theorising**
  - accounts for
  - explains that
  - supports
  - used in the **present tense** or the present timeframe of the current (writer's) text.

Reporting Verbs (Thompson & Ye 1991)
Papers about critical thinking:


