What is Critical Analysis?

This workshop will...
- Introduce you to the basic concepts and process of critical analysis
- Examine how to be critical and analytic rather than descriptive
- Guide you towards identifying critical analysis in writing

Teaching points:
1. The process of critical analysis
2. Identifying critical analysis in text
3. Critically analytic versus descriptive thinking

Activity 1: What do you think critical analysis is
1. The process of critical analysis

In essence, critical analysis is a three-step process of asking questions about something regarding

- how it looks
- how it works (by taking it to pieces)
- how it compares to other ‘somethings’ so as to make a judgement about its value or significance.

Below are two more detailed representations of this process.

Linear representation

Adapted from Plymouth University (2008)
Or you can look at it like this in a (nearly) cyclical format

Adapted from Plymouth University (2008)

John Hilsdon will work through this process on the piece of film (the link is below for further watching on Critical Thinking but John’s presentation is on slide 4):

http://archive.learnhigher.ac.uk/videoresources/criticalthinking_student/

See how you move from descriptive ‘shallow’ thinking to ‘deeper’ analytic thinking to evaluative thinking?

You will also notice…

you can be analytic without being critical,
but you can’t be critical without being analytic.

Let’s start to flex those brain muscles.

I am presented with a cat, a standard lamp, and a piece of chewing gum. Weaving a story with all of these objects, I answered all the questions in the graphic above. So...

**What, where, who, when, how, why, what if, so what, what next?**

(Who) My cat, having an IQ higher than myself, enrolled (when) last year at (where) Bradford University on an electrical engineering degree. She wanted to do this so that she could (what) develop household objects, such as a standard lamp, that would be (why) incredibly efficient in their use of electricity. She managed to do this (how) by inserting a piece of used chewing gum into the electrical circuit – I don’t know how as I’m not as clever as her. Now that she has done this, (what if) more objects can reduce their electricity use. This means that the (so what) amount of electricity produced by power stations will be greatly reduced and less fossil fuel would be needed and (what next) fewer stations would be driven by nuclear power.
Activity 2: Storytime

In pairs or groups, choose three pieces of card out of the box. Create a story using the things on the cards and the questions: what, where, who, when, how, why, what if, so what, what next? (use the space below for making any notes to help you). You may be asked to tell your story to the rest of the class and answer questions from other students.

What, where, who, when, how, why, what if, so what, what next?

2. Identifying critical analysis in text

When handed your assignments, your tutors will ask you to ensure your work employs critical analysis. But what does this sort of writing look like?

Let’s look at the texts, remembering the questions you ask when critically analysing and the skills and attitudes employed when thinking critically.

1. My name is John. I live at 33 Acacia Drive. I have five sisters and brothers. I am good at team games, and enjoy football, cricket and baseball. Team games were encouraged by both my parents. All of my family took part in sport. Our teachers at Beckfield School were very interested in sports sciences. We were encouraged to drink lots of water to improve our performance. Our team always did well, so it seems to have worked. I also like to go running. I live in the beautiful Welsh borders, so it is a pleasure to take a healthy run each day.

2. At Beckfield School, teachers took a scientific approach to school sports over a ten-year period. In particular, pupils were encouraged to monitor they intake of fluids. All pupils were required to drink a minimum eight glasses of tap water a day. The school did consistently well in sports competitions over this period, and the teachers claimed that this was proof of the importance to good performance of liquid intake. However, it is not clear that the school’s sports performance can be attributed to water intake. Beckfield School’s claims were investigated by an independent researcher, Martinez (2002). Martinez argued that although Beckfield’s performance was good, its performance in competitions was consistent with what would be expected of a school of its size. In addition, interviews with pupils showed that most had not followed the school regulations on drinking water. Most pupils stated that they drank less than one glass of tap water a day. Although other research does suggest that water intake benefits performance (Fredo, 1997; Mitsuki, 1997), Beckfield School’s claims about the benefits of tap water in its sports success have not been proved.

Are they critically analytic? How do you know?
If a piece of academic text does not employ critical analysis, it tends to be descriptive. (There are other types of writing that are neither: narrative stories and poetry are two examples) You may be given assignments in which you are asked to produce purely descriptive writing, and some subjects ask for this type of writing to be so detailed that the lines become blurred about where descriptive writing ends and where critical analytic writing starts.

3. Critically analytic vs. descriptive thinking

It was mentioned earlier that we would look at the differences between ‘shallow’ and ‘deeper’ thinking which will lead you to reading and writing in particular ways. The term for ‘shallow’ thinking and text is descriptive, and the ‘deeper’ thinking and written work is ‘critically analytic’.

Using the graphics on the questioning process and the additional information above, try the activity below.

Activity 3: Knowing the difference

Read through the definitions on the activity sheet and ask any questions you may have. Discuss with a neighbour whether it is descriptive or critically analytic, and cut out the definitions. Glue them onto the blank table.

You can use these as a check for your own work too.

For further support on Critical Analysis, we run workshops on Critical Thinking, Critical Analysis in Reading and Critical Analysis whilst Writing. We also run specific workshops on How to Read Journal Articles Critically and Choosing Journal Articles. Please also refer to the books in the list below.
References


Answers

<table>
<thead>
<tr>
<th>TALKING POINT</th>
<th>Beckfield School texts</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Text 1</strong></td>
<td><strong>Text 2</strong></td>
</tr>
<tr>
<td>Generally: short simple sentences; not academic vocabulary; seems keener on what he likes and who he is than on experiment</td>
<td>Generally: longer simple, compound, and complex sentences; more academic vocabulary</td>
</tr>
<tr>
<td>Assumes connection between drinking water and succeeding at sport; no questioning the result or looking behind the results; no sources or evidence</td>
<td>Description of method and timeframe (10 years, eight glasses/day); consideration of alternatives and questions reasons for results; use of evidence (Martinez; Fredo, Mitsuki); identifies weaknesses in research (drinking less than one glass a day); conclusion (not been proved)</td>
</tr>
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</table>
**Activity 3:** Knowing the difference

<table>
<thead>
<tr>
<th>Descriptive</th>
<th>Critically Analytic</th>
</tr>
</thead>
<tbody>
<tr>
<td>States what happened</td>
<td>Identifies the significance</td>
</tr>
<tr>
<td>States what something is like</td>
<td>Evaluates strengths and weaknesses</td>
</tr>
<tr>
<td>Gives the story so far</td>
<td>Weighs one piece of information against another</td>
</tr>
<tr>
<td>States the order things in which things happened</td>
<td>Makes reasoned judgments</td>
</tr>
<tr>
<td>Says how to do something</td>
<td>Argues a case according to the evidence</td>
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<tr>
<td>Explains what a theory says</td>
<td>Shows why something is relevant or suitable</td>
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<tr>
<td>Explains how something works</td>
<td>Indicates why something will work best</td>
</tr>
<tr>
<td>Notes the methods used</td>
<td>Identifies whether something is appropriate or suitable</td>
</tr>
<tr>
<td>Says when something occurred</td>
<td>Weighs up the importance of the component parts</td>
</tr>
<tr>
<td>States the different components</td>
<td>Evaluates the relative significance of details</td>
</tr>
<tr>
<td>States options</td>
<td>Structures information in order of importance</td>
</tr>
<tr>
<td>Lists details</td>
<td>Shows the relevance of links between pieces of information</td>
</tr>
<tr>
<td>Lists in any order</td>
<td>Draws conclusions</td>
</tr>
<tr>
<td>States links between items</td>
<td>Identifies why the timing is of importance</td>
</tr>
<tr>
<td>Gives information</td>
<td>Gives the reasons for selecting each option</td>
</tr>
</tbody>
</table>