

'BE MORE CRITICAL!'

A practical guide for Health and Social Care students



Introduction

'Your account is too descriptive ...'

'You need to show more analysis in your work ...'

'You need to question the findings in more detail ...'

'You need to be more critical ...'

If you have ever had feedback like this on your work and wondered what it means, and what you should do about it, then this guide is for you.

This guide has been written to show you:

- what being 'critical' in your work means in your health and social care studies
- how to bring that 'critical' dimension into both your academic work and your practice.

The examples used in this guide are drawn from the current debate in the UK about healthy lifestyles and obesity, looking in particular at the causes, treatment and prevention of childhood obesity.

How to use this guide

Take a look at the 'Contents' list opposite, and pick the section that looks most relevant to you right now. Read it thoughtfully – critically! – and see which sections of this guide are going to be most useful to you. You may want to read the guide in full, or you may wish to focus on a particular section.

We would really value your comments about this guide:

- What is useful? What is less useful?
- Is there anything else you would like to see in this guide that isn't included?
- How can we improve it?

In doing this, you are of course being 'critical'. Not negative, but thoughtful and constructive about the strengths and weaknesses, uses and limits of the guide.

We look forward to hearing from you.

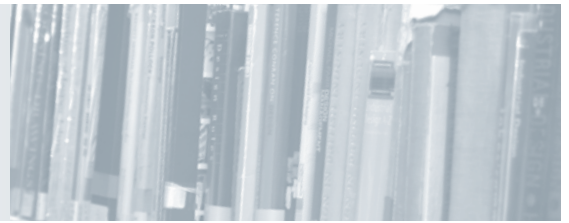
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1 | Being 'critical' at university

The word 'critical' has several meanings in everyday life, most commonly:

- 'finding fault' – a negative comment, eg '*not good enough*' / '*sloppily done*' / '*could do better*' / '*why didn't you*'...?
- 'key, decisive, crucial' – as in '*a critical moment*', '*critically ill*', '*a critical incident*', '*a critical decision*'.

But in your studies, being 'critical' means something different. It means selecting your sources of information carefully, and being thoughtful, questioning, probing, and not taking things (experiences, reading, other people's comments) at face value.

As a student in higher education, you need to weigh up the strengths and limitations, the values or merits of what you read, see and hear. You can then justify your own conclusions. You need the skill of 'critical appraisal' in 'evidence based practice' in health and social care.

Being critical: why does it matter?

Daily Mail

Childhood obesity linked to youngsters staying up too late

19th October 2006

Soaring levels of child obesity may be caused by youngsters getting too little sleep, claim researchers.

Imagine you work in a community team alongside other health and social care professionals. A colleague shows you the above newspaper clip. She thinks that children staying up too late could be a key cause of childhood obesity, and tells everyone they should be checking children's bedtimes as the top priority with all the families they visit.

Before you change your practice, you need to be confident about the quality of the evidence on which this research is based. So you need to ask some questions:

- Where can I find the original research that the article is referring to?
- Who conducted the research? What are their credentials?
- How was the research carried out? For example, where were the children in the study from, and what was their age range? And how did the researchers define 'obesity'?
- Where was the study conducted? Over what period of time?
- And so on

The one thing you **wouldn't** do is rush off and act on this snippet of information, before you go to find out more!

Much of your learning at university is designed to enable you to develop the skills you need for life and work. A questioning, 'critical' approach is fundamental to everything. You are not simply a 'sponge', soaking up information, and repeating it in your assignments to prove you 'know' it. Your course is designed to help you develop a critical approach to evidence so you can apply it in your future practice as a health or social care professional.

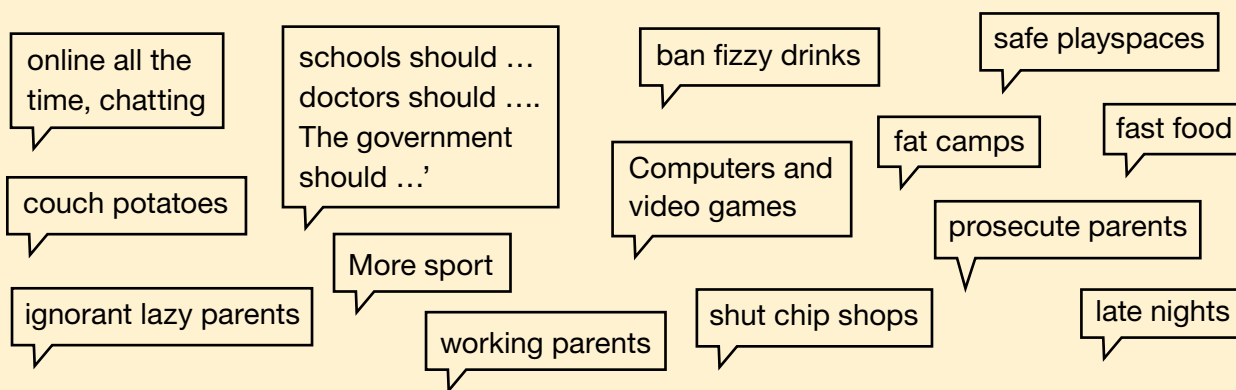
This guide aims to show you how you can bring a critical approach to

- the tasks you are set in the course of your studies - both your academic work and your practice, and then to
- your future work as a thoughtful professional.

2 | A critical approach to anything

In higher education, students are expected to form judgements. Making judgements involves weighing up evidence, which is different from forming opinions – which people often base on little knowledge.

Mention the topic of childhood obesity and you'll hear a range of opinions about the causes, effects, whose fault it is, and what should be done about it ...



There may be some truth in all the above opinions, but before a practitioner can take any action, careful research is needed in order to:

- understand the dynamics of the problem
- seek evidence for the potential effectiveness of any action proposed to prevent it.

You need to adopt a questioning approach to what you read and hear about any health or social issue. First though, think about your own views and reactions to the issue:

- Do you have views on the issue already? What are they?
- Do you know a bit about it? What do you know? And how do you know it?
- How might your views and previous knowledge or experience affect your approach to looking at the evidence on an issue?

Try a systematic approach to asking questions...

Ask 'strategic questions' - six questions to trigger critical thinking

Here are six 'strategic questions' to help you assess the quality of anything you read or hear, whether from a

- book or article
- website, newspaper, magazine, TV or radio programme
- comment from a colleague.

Where ...?	What...?
How...?	Who...?
When...?	Why...?

<p>Where did you find the information?</p> <p>Did you just 'come across' it? Or did you access it through a systematic search?</p>	<p>What is it and what are the key messages or results/findings?</p> <p>Is it a research study, professional opinion, discussion, website or other?</p>
<p>How has the author/speaker come to their conclusions?</p> <p>Is their line of reasoning logical and understandable?</p> <p>If you are looking at research or a review of research, how was it carried out? Was it done well? Do the conclusions reflect the findings?</p>	<p>Who has written/said this?</p> <p>Is the author/speaker an organisation or individual?</p> <p>Are they an expert in the topic?</p> <p>Could they have any bias? How do you know?</p>
<p>When was this written/said?</p> <p>Older key information/sources may still be valid, but you need to check if there has been more recent work.</p>	<p>Why has this been written/said?</p> <p>Who is the information aimed at - professionals or patient/client groups?</p> <p>What is the aim of the information?</p>

Six questions to trigger critical thinking (Aveyard, Sharp & Woolliams 2011; adapted from Woolliams et al 2009)

Asking these 'strategic questions' will help you develop a more critical approach to your studies, and to evaluate (or 'appraise') reports, articles, and other materials in a thoughtful and balanced way. You can adapt the questions to suit you and the topic you are investigating.

3 | A critical approach to choosing sources

A critical approach to reading starts before you begin to read anything!

Reading lists

Reading lists can be very long! Life is short and you won't have time to read everything, so you need to select which sources you will read. And you may find extra materials which you think may be relevant to your topic, especially when you have cracked how to use the essential databases in your field. (Library 'Subject help' is a good place to start! www.brookes.ac.uk/library/subject.html)

You can tell a lot about a source just from thinking about the information in the reference list. Looking carefully – 'critically' – at each reference can help you to anticipate the kind of material it will be.

Look at the table below. On the left are some examples of items a student has chosen from a reading list on the topic of childhood obesity. On the right are the thoughts the student might have before they actually read any of the sources.

From the reading list	What you can tell just from reading the list
<p>British Medical Association (2005) <i>Preventing childhood obesity</i>. London: British Medical Association. Available at: www.isrm.co.uk/reference/documents/childhoodobesity_000.pdf (Accessed 02/6/09)</p>	<p>A key document from the British Medical Association, relevant to the topic focus, and fairly recently published.</p> <p>The BMA is a professional association for UK doctors – so this publication is likely to be well researched and reliable.</p>
<p>Crowther R, Dinsdale H, Rutter H and Kyffin R (2006) <i>Analysis of the National Childhood Obesity Database 2005-6</i>. London: South East Public Health Observatory/Association of Public Health Observatories/Department of Health. Available at: www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsStatistics/DH_063565 (Accessed 02/6/09)</p>	<p>A document summing up key statistics in relation to childhood obesity in the UK.</p> <p>Three significant public bodies have joined forces to commission these authors to analyse a database. This is also likely to be a reliable and authoritative source.</p>
<p>Whiting L (2008) Tackling Childhood obesity. <i>British Journal of School Nursing</i>. January/February Vol 3 No 1: 36-41</p>	<p>A peer reviewed journal article (6 pages).</p> <p>Articles reporting research in professional journals are useful a range of practitioners. The article is recently published and likely to be up to date.</p> <p>'Peer reviewed' means it has been checked by other experts in the field. It indicates that the research was thoroughly carried out and it should be reliable.</p>

Record your references as you go along!

Once you start reading, you will need to make notes and to record the source of everything you write down, so that you know where the material comes from when you write up your work. Your reader will need to know where it all comes from too – and you do this by referencing your work systematically.

The references in this guide are all good models for how to reference a variety of sources. For a fuller guide on referencing, find and use:

Harper A, Hunt J, Williams K and Woolliams M (2009) *How to reference: for Health and Social Care students* (5th edition). Oxford: Oxford Brookes University.

It is available via the Upgrade website under 'R' on the Study Skills A/Z
www.brookes.ac.uk/services/upgrade/a-z.html

and via the document store of the School of Health and Social Care:
<https://shsc-int.brookes.ac.uk/documents/browse.php>

You might like to ask your librarian about using Endnote, a programme that helps you manage your references. See www.brookes.ac.uk/library/endnote.html

Beyond the reading list

To become an effective researcher, you need to be able to find information that is relevant to your topic, and that you judge to be of sufficient quality to help you build your argument. To do this, you will need to go beyond the reading list, and look for sources of information yourself.

Information comes from a variety of sources. You may search by hand, for example looking at books in the library, or turning the pages of a newspaper. Or you may carry out a more formal and systematic search, for example by using the university's online library databases. It's important to find the best available evidence for your inquiry. To do this, you need to have an organised approach to finding information.

When you look for information, the two key questions you need to ask are:

- 1 Is the information **relevant to my area of study/research?**
- 2 Is the information **reliable?**

To research the topic of childhood obesity, our student next moved beyond the reading list, and looked for further information on the topic. Below are some of the sources of information they found (in the order they found them), where they found each one, and some comments about each.

What the student found	Where and how they found it – and comments on the sources
<p>Martin D (2007) Treat child obesity as neglect, say doctors. <i>Daily Mail</i>. June 15:10. Available at: www.dailymail.co.uk/news/article-461876/Treat-child-obesity-neglect-say-doctors.html. (Accessed 02/06/09)</p>	<p>A short article from a daily tabloid. This is not authoritative research, and may misrepresent what doctors actually did say, but as a report of professionals' views, it could be interesting. You'd need to try and track back to find the original research.</p>
<p>Lempert T (2005) Childhood obesity fueled by marketing tactics. <i>San Francisco Chronicle</i>. April 27. Available at: www.sfgate.com/cgi-bin/article.cgi?f=/c/a/2005/04/27/EDGJNCF8I61.DTL&type=printable (Accessed 02/06/09)</p>	<p>Found via 'Google' for articles in a search on childhood obesity. It is an interesting, brief article from a local newspaper in San Francisco, but for authority you'd need to track down the original research.</p> <p>Look out for possible cultural and professional differences between the health services and practices in the country where the research was carried out and those in your own country.</p>
<p>Crowther R, Dinsdale H, Rutter H and Kyffin R (2007) <i>Analysis of the national childhood obesity database 2005-6</i>. London: Association of Public Health Laboratories.</p>	<p>An authoritative report found through an online database search of materials on childhood obesity. This is an excellent reliable source of relevant data and figures.</p>
<p>Fox K R (2003) Childhood obesity and the role of physical activity. <i>Journal of the Royal Society for the Promotion of Health</i>. 124 (1): 34-39.</p>	<p>This is a peer reviewed article accessed through a search of library databases, very relevant to the topic area.</p>
<p>Department of Health and Department for Education and Skills (2005) <i>National healthy schools status: a guide for schools</i>. London: Department of Health. Available at: www.wiredforhealth.gov.uk/PDF/NHSS_A_Guide_for_Schools_10_05.pdf. (Accessed 02/06/09)</p>	<p>This report was cited by Whiting (2008) (on the reading list), and proved to be a useful and authoritative piece of source material. The references in the articles you read can lead you on to other useful sources.</p>
<p>Wikipedia: information on obesity Available at: http://en.wikipedia.org/wiki/Obesity (Accessed 02/06/09)</p>	<p>Anyone can contribute to Wikipedia – so the site is not an authoritative source of information. Although Wikipedia can be a good place to start, you need to double-check all information here very carefully, by going to more authoritative sources.</p>
<p>Hawkes N (2007) A brisk walk to school or a quick game of football could halve child obesity. <i>The Times</i>. March 20. Available at: www.timesonline.co.uk/tol/news/uk/health/article1539686.ece. (Accessed 02/06/09)</p>	<p>This was accessed via a search on 'Google'. The article, from the Times website, highlights some new research on childhood obesity. If you wanted to know more about the study, you would need to track down the original research.</p>

You can use the 'six questions to trigger critical thinking' (see page 6) to evaluate all the sources of information you find.

4 | Reading critically

You can use the strategic questions (p6) to keep yourself alert, questioning and critical while you read. In the following pages we show how the 'strategic questions' can help to draw out key information from the text in order to get an overview of a piece of research.

Abstract 1: a 'systematic review'.

Systematic reviews are a rigorous review of primary research on a particular topic. They are helpful to practitioners for gaining an overview of the best available evidence on a topic, and for making informed choices. Generally they are in a concise, reader-friendly format. This one is taken from a Cochrane Review.

The six strategic questions are used here to help you pick out the key points.

Interventions for preventing obesity in children (Review)

Summerbell CD, Waters E, Edmunds LD, Kelly S, Brown T, Campbell KJ

This record should be cited as:
Summerbell CD, Waters E, Edmunds LD, Kelly S, Brown T, Campbell KJ. Interventions for preventing obesity in children. *Cochrane Database of Systematic Reviews* 2005, Issue 3. Art. No.: CD001871. DOI: 10.1002/14651858.CD001871.pub2.

This version first published online: 20 July 2005 in Issue 3, 2005.
Date of most recent substantive amendment: 28 March 2005

ABSTRACT

Background
Obesity prevention is an international public health priority. The prevalence of obesity and overweight is increasing in child populations throughout the world, impacting on short and long-term health. Obesity prevention strategies for children can change behaviour but efficacy in terms of preventing obesity remains poorly understood.

Objectives
To assess the effectiveness of interventions designed to prevent obesity in childhood through diet, physical activity and/or lifestyle and social support.

Search strategy
MEDLINE, PsycINFO, EMBASE, CINAHL and CENTRAL were searched from 1990 to February 2005. Non-English language papers were included and experts contacted.

Selection criteria
Randomised controlled trials and controlled clinical trials with minimum duration twelve weeks.

Data collection and analysis
Two reviewers independently extracted data and assessed study quality.

Main results
Twenty-two studies were included; ten long-term (at least 12 months) and twelve short-term (12 weeks to 12 months). Nineteen were school/preschool-based interventions, one was a community-based intervention targeting low-income families, and two were family-based interventions targeting non-obese children of obese or overweight parents.

Six of the ten long-term studies combined dietary education and physical activity interventions; five resulted in no difference in overweight status between groups and one resulted in improvements for girls receiving the intervention, but not boys. Two studies focused on physical activity alone. Of these, a multi-media approach appeared to be effective in preventing obesity. Two studies focused on nutrition education alone, but neither were effective in preventing obesity.

Four of the twelve short-term studies focused on interventions to increase physical activity levels, and two of these studies resulted in minor reductions in overweight status in favour of the intervention. The other eight studies combined advice on diet and physical activity, but none had a significant impact.

The studies were heterogeneous in terms of study design, quality, target population, theoretical underpinning, and outcome measures, making it impossible to combine study findings using statistical methods. There was an absence of cost-effectiveness data.

Authors' conclusions
The majority of studies were short-term. Studies that focused on combining dietary and physical activity approaches did not significantly improve BMI, but some studies that focused on dietary or physical activity approaches showed a small but positive impact on BMI status. Nearly all studies included resulted in some improvement in diet or physical activity. Appropriateness of development, design,

Interventions for preventing obesity in children (Review)
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Who? The authors are...

When was the research published? Is it up-to-date?

Why was this research carried out?

What exactly is it about?

How did they do it? What methods did they use? Why did they use this approach?

Abstract 2: an article on childhood obesity.

The focus of this article is stated at the beginning: to consider how government policy aimed at tackling the problem of obesity in children may impact on school nurses.

Research

Tackling childhood obesity

Childhood obesity is becoming a major problem and this article highlights the rising levels in the UK and considers how key government policy, aimed at tackling the problem, may impact upon school nurses.

Childhood obesity

Although it is important to acknowledge that childhood obesity may manifest itself as a result of genetic disorders such as Prader-Willi syndrome, this condition only occurs in 1 in every 25 000 births (Kopelman, 2000); instead the majority of children become obese as a result of an inappropriate diet and a lack of physical exercise (Hughes et al, 1997; Reilly and Dorosty, 1999; Chinn and Rona, 2001).

According to the House of Commons Health Select Committee (2004) there is no consensus in relation to a definition of childhood obesity; however, there are agreed indicators, the most commonly used of which is the percentiles of UK reference curves (85th relating to 'overweight'; 95th to 'obese'). Since Body Mass Index (BMI) in children varies between boys and girls, and changes as the child grows and matures, BMI has its limitations as a form of measurement. Despite this, a range of literature has used the BMI to define obesity in childhood (Prentice, 1998; Dietz et al, 1999; Cole et al, 2000) and there remains widespread support for its use (Cole et al, 2000).

The epidemic of childhood obesity has now been widely acknowledged within the UK for a number of years (Hughes et al, 1997; Reilly and Dorosty, 1999; Chinn and Rona, 2001). It was identified, from a survey conducted in 1999 in the UK, that 31% of 15 year old girls and 17% of 15-year-old boys were obese (Scottish Intercollegiate Guidelines Network (SIGN), 2003). Jotangia et al (2005) confirmed that between 1995 and 2003 obesity in the 2-10 years age range rose from 9.6% to 14.9% in boys and from 10.3% to 12.5% in girls.

There appears to be a likelihood that an obese child will become an obese adult (Jaitinen et al, 2001). As the child enters adulthood, the consequences of obesity become more pronounced and obesity is linked with a decreased longevity of life (National Audit Office, 2001).

The potential problems of obesity have consequences for the NHS and there has been a considerable rise in the financial implications of obesity; the National Audit Office in their key document *Tackling Obesity* (2001) estimated that obesity cost the NHS half a billion pounds per annum in treatment costs, but possibly had a £2 billion pound impact on the whole economy each year. More recently, the House of Commons Health Select Committee (2004) has suggested that this has now risen to a conservative estimate of between 3.3 and 3.7 billion pounds per year (6.6-7.7 billion for overweight and obesity). As a result, it is little wonder that the Department of Health (DH) has given much recent attention to the promotion of health and in particular, the encouragement of children and families to eat a healthy diet and to increase physical activity levels (DH, 1998; DH, 2000; DH, 2001; DH, 2003; DH, 2004a; DH, 2004b; DH, 2005). However, it is clear that the:

'Department of Health cannot by itself be expected to be able to 'cure' the problem' (National Audit Office, 2001, page 1)

and it could be argued that there is an implication that personal responsibility should be taken with health professionals, in particular school nurses, playing a key role.

Tackling child obesity: first steps

In 2004, as a result of the rising childhood obesity levels, a Public Service Agreement Target (PSA) jointly owned by the Department of Health; Department for Education and Skills (DfES); and Department for Culture, Media and

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What type of paper is this? What is the author trying to achieve? How effective have they been by the end of the paper?

Why is the author writing this piece? Is there a professional or political objective? Is this clear?

How well are points justified and argued in this paper?

Who is the author? How well qualified are they? Have they written previously on this or related topics?

Will this information have been peer reviewed? **When** was this paper written? Is it current?

At the end of the paper: So what? How can you use this research in your work? What are the implications of this research? Have any recommendations for practice been made? Are these justified by the evidence? This is the REALLY important bit!

You can see how this reader takes the questions further and uses them as a basis for further questioning.

As you become more confident in your critical reading skills, you can begin to develop your approach to questioning the material you read. Building on the six questions to trigger critical thinking (see page 6), you might begin to explore more specific and detailed issues.

5 | Being 'critical' in your assignments

When you have a critical, questioning approach, it will show in your work in many different ways. Below is an extract from the first draft of a student's assignment on childhood obesity.

'Childhood obesity - its causes, treatment and prevention': Critically analyse recent literature, policy and research on this topic.

Let's imagine that the comments added to the right of the text below have been written by a 'critical friend', someone who wants to help the student to develop their critical writing skills. These comments give some suggestions for how the writing could be developed to bring in a more critical approach.

The first draft: A description of research findings

According to Wikipedia (2009) an increase in rates of obesity appears to be caused by modern lifestyles, with greater access to large amounts of high calorie food and limited need for physical activity due to technological advancements.

Your lecturers are going to want to see you have used a more reliable source than Wikipedia. You need to find more authoritative evidence, by reading more widely.

According to the British Medical Association (2005), there were one million obese children in the United Kingdom (UK) in 2005. This is a vast number, and it is clear that action needs to be taken to tackle this problem. The National Audit Office et al (2006) say that obesity costs the NHS around £1 billion per year. Fox (2003) states that childhood obesity poses a serious threat to public health. Whiting (2008, p36) notes that rates of childhood obesity are continuing to rise and describes this rise as an 'epidemic'. She suggests that the causes of obesity are poor diet and lack of exercise amongst children. Lempert (2005) suggests that marketing strategies used to promote food products are another underlying cause of the rise in childhood obesity. Hawkes (2007) suggests that another cause of obesity is insufficient exercise. And Martin (2007) indicates that parental neglect is another factor underlying childhood obesity.

This might seem obvious but I'm sure your marker will want some evidence to support this link.

This is a great headline figure. It might be worth saying how this was arrived at, and how the BMA define 'obese'.

How did they calculate this cost?

What is their evidence behind this claim?

I'm sure the marker will be pleased to see you have read lots of studies, but they may be thinking 'So what?' How significant are these factors? What do YOU make of them?

Many documents explore how the rise in childhood obesity can be tackled, including government reports and policies as well as academic reports, which explore the possible causes of childhood obesity, and suggest strategies both for prevention and treatment of the condition.

This is a bit vague. I imagine your lecturers will be looking for more detail and comment here. Do the strategies work? Is there any evidence for this?

Some initiatives that have been set up by the UK government at primary school level to try to tackle these problems include the School Meals Programme (National Audit Office et al 2006), which aims to improve nutritional standards of school meals, and the School Sport Strategy (Department for Education & Skills & Department for Culture, Media and Sport 2002), the goal of which is to increase the levels of children participating in exercise within school. The Healthy Schools Programme (Department of Health and Department for Education and Skills 2005) is another initiative which aims to assist schools to introduce these initiatives to encourage healthy eating and physical activity amongst children, particularly targeting schools in deprived areas.

This is where I think you need to tell the reader what sense you have made of the information you have considered. Keep going!

Although the student has carried out relevant research, they have not demonstrated the ability to *critically analyse* the literature and policy that they have read. They could try using the six questions to trigger critical thinking! If the reader is beginning to think ‘So what...?’ then the writer has more work to do. For example ...

‘So...? *did the initiative work?*’

‘So... *did it make a difference?*’

‘So ... *how effective was it?*’

This student was lucky. They got some feedback from a ‘critical friend’, and used it to help them write their second draft – the one they handed in! Look closely at the second draft (below), and the tutor’s comments:

The second draft: A critical response to research findings

In this extract, the student has demonstrated the ability to critically appraise the literature and policy they have referred to. They have moved beyond merely reporting what they have read, to demonstrating their ability to compare and contrast different authors’ and policymakers’ perspectives and have brought in their own thoughts and comments.

The parts of the extract below which demonstrate a ‘critical’ approach are shown in dark blue. The comments (shown to the right of the extract) indicate that the tutor is impressed! The writer has answered all the ‘So what?’ questions before the reader could ask them. It is an excellent piece of writing.

According to the British Medical Association (2005), there were approximately 1 million obese individuals under the age of 16 in the United Kingdom (UK) in 2005. However, estimates of the incidence of childhood obesity within the UK vary for a variety of reasons. Crowther et al (2007) note that it may be underestimated and under-reported due to the unwillingness of children, and possibly their parents, to participate in measuring their weight. As well as this, there are different ways of defining childhood obesity: Obesity is not easy to define in children due to variations in the ratio between weight gain and height gain during normal childhood growth. But despite these factors there appears to be no doubt that the incidence of children being overweight or obese has been steadily rising in the UK since the mid-1990s (Chinn & Rona 2001; Reilly & Dorosty 1999). The National Audit Office et al (2006) suggest that obesity costs the NHS around £1 billion per year, and possibly much more in indirect costs.

Immediately, you have demonstrated an ability to look at what you have read with a critical perspective, and think about the rigour of the material.

You have shown that you are dissatisfied with headlines and want to explore the basis for definitions as these can be too straight-forward and potentially misleading.

You have demonstrated that you have read and carefully considered a variety of literature to help you come to your own informed conclusions regarding the causes and of obesity in the UK.

Much attention has been focussed on how to halt this rise in childhood obesity, both through prevention and treatment of the condition. As a result, interest has been focussed on what the underlying causes of childhood obesity might be. There appear to be a range of views on this, and therefore on how the condition can best be treated and prevented.

This is a useful linking paragraph that shows you are in control of your writing, leading to a focus on the ‘views’ in the following paragraph.

In the popular media both in the UK and worldwide, a variety of claims about the causes of childhood obesity can be found, for example blaming childhood obesity on parents’ neglect (Martin, 2007), lack of children’s exercise (Hawkes 2007), and ineffective Government intervention (Rodgers 2007). Many of these claims appear to be emotive and simplistic, however, and careful scrutiny is required to assess the validity of these. A broader search is therefore required in order to gain a more balanced and evidence-based perspective on the causes of childhood obesity. Whiting (2008) provides a useful summary of the causes of childhood obesity, suggesting that the majority of children who become obese do so as a result of an ‘inappropriate’ diet and a lack of physical exercise. Interestingly, Lempert (2005) suggests that marketing by food companies may be a factor in causing the rise of childhood obesity. It should be noted that although he is writing from a US perspective, his comments may nevertheless be relevant in the UK.

You correctly warn the reader that these are ‘popular media’ sources (though I have also checked your references). They are not necessarily wrong, but have no authority for being right! It is helpful to see that you weight your sources differently.

These studies have more authority – well done for carrying out a more thorough search.

Whiting (2008) questions whose responsibility it should be to tackle childhood obesity, noting the complexity of the underlying issues. Fox (2003) suggests that a multi-agency solution is needed to treat and prevent childhood obesity involving schools, the home, the neighbourhood as well as local planning in terms of provision of services and amenities.

These comments show you can relate these two writers in a discussion about how to tackle the problem.

Whiting (2008) outlines some of the initiatives have been set up by the UK government at primary school level to try to tackle these problems (Department for Education & Skills & Department for Culture, Media and Sport 2002; Department of Health and Department for Education and Skills 2005; National Audit Office et al 2006), through which it is hoped that young people will be supported in developing more healthy behaviours at all levels of society. She notes that a community approach underlies the above government initiatives, aiming to tackle childhood obesity through involvement of the local community, thereby transferring some responsibility from Government and healthcare professionals to groups and individuals.

This section brings the issues together and helps to set the points considered in the wider context of future action. Well done!

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6 | Using a critical framework in reflective writing

Students are often asked to use a 'framework' to structure their critical analysis. The word 'framework' may conjure up the picture of scaffolding or tent poles – but what does it mean in the academic context?

A framework is a structure that has been generated by other professionals or authors who have thought about academic or professional issues. These 'frameworks' offer a starting point for you when you in turn need to think critically about a situation, problem or process. Using a framework can help you to make sense of your experiences – and to compare your experiences and ideas with other peoples'.

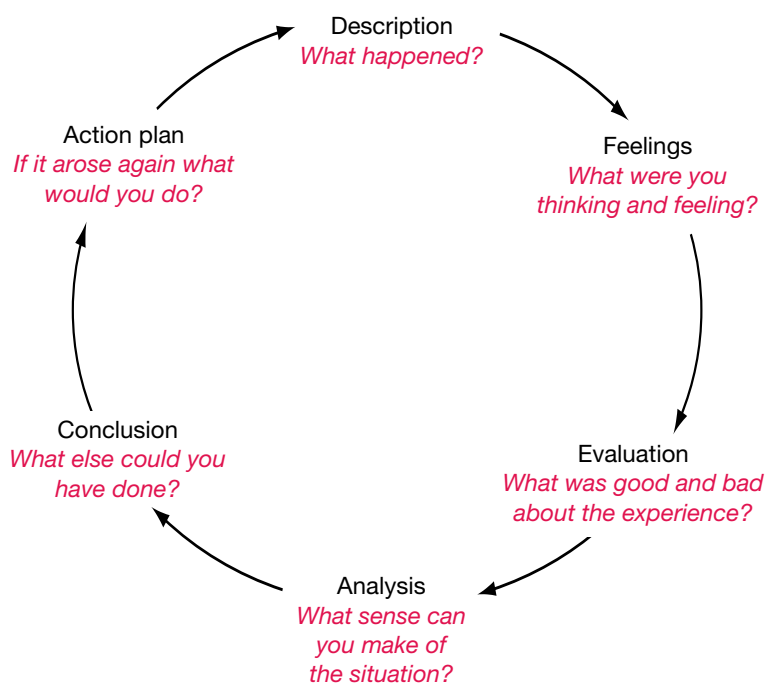
A framework is especially useful in reflective writing, as it can offer you a way to move beyond simply describing an incident or issue, and help you think systematically and constructively about it. The analysis and conclusions are the key steps needed in successful critically reflective academic writing.

This section considers one framework in detail – Gibbs' reflective cycle. When you have seen how one framework can be used, you may be more confident about judging the usefulness of other frameworks for your own thinking and writing.

Using a framework: Gibbs' reflective cycle

Gibbs' reflective cycle encourages you to think systematically about the phases of an experience or activity. It is often recommended as a helpful framework for health and social care practitioners to use to reflect on their experiences as a practitioner.

The reflective cycle



(Gibbs 1988)

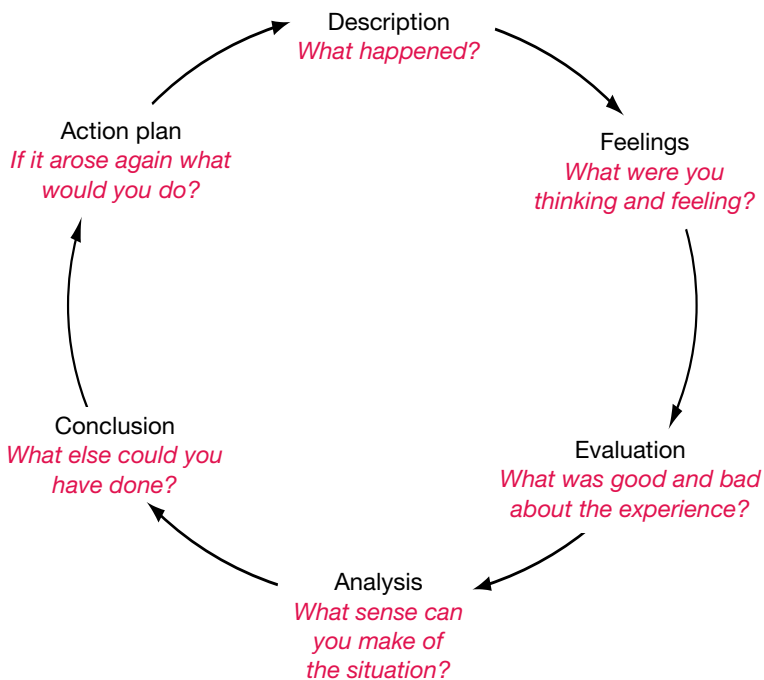
Using Gibbs' reflective cycle: an example

Start with a brief description of the incident or experience – and move on round the cycle.

In this scenario a practitioner has been to visit a client. Let's imagine two students are writing up this experience: Student 1 and Student 2. The first three headings in their reflective diary are identical (this wouldn't happen in real life, but here it helps to underline a point!)

Here are the first three headings in their reflective diary:

Description - Yesterday, I was talking to a client about her own and her family's general health. She asked me if I thought her daughter was overweight. Although my personal opinion was that her daughter was overweight, I didn't know how to judge objectively whether this was the case. I was unsure whether it was appropriate to give my personal opinion in this situation.



Feelings - . . I felt 'cornered' and unprepared, and was worried that my difficulty in answering her question could have had a detrimental effect on my relationship with the family. I felt that whatever I said in response could be misinterpreted.

Evaluation - On the positive side, I was in a position to begin addressing a problem that clearly needed to be discussed. The client had given me an opening to explore health promotion issues with herself and her daughter. The down side was that I couldn't base my response to her question on anything more than my own opinions. How can I judge what is overweight or obese? I need to explore this further.

So far, so good.

Both students have successfully outlined the first phases of the reflective cycle.

But what happens next?

Half Moon or Full circle?

Spot the differences between Student 1 (the 'Half Moon') and Student 2 [overleaf] (the 'Full Circle!')

Student 1: the Half Moon!

<p>Analysis – <i>I had heard about the Body Mass Index (BMI). This is a tool that uses a person's height and weight to give an indication of whether or not they are overweight.</i></p> <p><i>The BMI is used as part of the NHS Direct service (NHS Direct 2009) and so has recognised validity. I could use this to give an objective response to the mother's question about whether her daughter is overweight.</i></p>	<p>In this skimpy analysis, Student 1</p> <ul style="list-style-type: none"> • offers just one simple solution (use of the BMI) • does not question the validity of the adult BMI for children • does not appear to have read anything beyond the information supplied by NHS Direct • does not consider the broader contextual issues around parental involvement.
<p>...and now for the conclusions ... based on this analysis</p>	
<p>Conclusions – <i>The BMI is a simple and objective measure that would allow me to talk through the results with my client. She would be able to work out her daughter's BMI and see that she is overweight. This would increase the chances that she might try to prepare a more balanced diet for her daughter.</i></p>	<p>How well grounded are these conclusions? The student suggests that:</p> <ul style="list-style-type: none"> • the BMI is 'simple' (<i>Well, is it?</i>) • her client will see her child is overweight (<i>will she? Is this how people react in this sort of situation?</i>) • the mother 'might' try to prepare a more balanced diet – (<i>how likely it this? What assumptions is the practitioner making?</i>) <p>Do you think these conclusions seem too simplistic?</p>
<p>... and now for the Action Plan .. based on these conclusions ...</p>	
<p>Action Plan – <i>Next time I am in this situation I will suggest that we work out the child's BMI. We could continue to use the BMI to monitor whether any interventions are having the necessary effect. Through this strategy I will therefore be able to support my client to monitor her daughter's weight through the use of an objective tool.</i></p>	<p>The conclusions are directly reflected in this Action Plan.</p> <p>The simplistic conclusions are going to lead to simplistic and mechanistic actions as a professional. Will just measuring the child's weight be the solution to helping this child reach a healthy weight? Hmm ... unlikely ...</p>
<p>... and all this because this student skimmed on the analysis, did not ask critical questions, did not read widely about the issue, did not think about what they had read, and did not discuss the different views expressed!!</p> <p>This is what we mean by a 'half moon' analysis! Little or no analysis will lead to oversimplified conclusions and action plans – and if you can't see the problem in all its complexity, you're unlikely to come up with an effective solution!</p>	

Student 2: the 'Full Circle'!

Analysis – *Basing a response on personal opinion has a number of limitations. I am aware that I have my own personal views about weight, and this may not fit with the views of my patients/clients. My personal opinion is not a satisfactory basis for a health promotion intervention. I need to identify an objective, reliable and valid tool that would allow me to monitor changes in the client's weight, and to plan and implement interventions.*

The BMA (2005) have suggested that there were 1 million obese children in the UK but there is ongoing debate about what constitutes 'childhood obesity' (Crowther et al 2006). Many researchers and organisations make use of the Body Mass Index (BMI) as a tool to enable objective judgement of height and weight ratios (Chinn and Rona 2001, Summerbell et al 2005, NHS Direct 2008). This, at least, provides a common method for trying to establish what constitutes obesity in children.

The BMI has been shown to have validity and reliability as a tool but it is not without its limitations (Cole et al 2000). Brener et al (2003) identified that self reports of height and weight used to calculate BMI in adolescents resulted in an underestimate of the prevalence of obesity in this population. This may have been because a standard Adult BMI tool was used which did not take account of variables such as age and gender – these variables could have a significant impact on the results. Paediatric BMI calculators have been devised which take account of these additional variables based on the commonly used concept of percentiles of UK reference curves. Whiting (2008) acknowledges the limitations of the paediatric BMI as a tool for assessing children's weight, but concludes there is nevertheless 'widespread support for its use' (p36). McLean et al (2003) suggest that parental involvement may be of benefit in weight control of children; but they point out that this needs further research to find out what factors impact on the success or otherwise of this approach.

ANALYSIS is the powerhouse of critical thinking!

The 'full circle' makes full use of all the phases of the reflective cycle.



In this analysis Student 2

- questions how they will measure the child's weight and why
- analyses the evidence behind use of the BMI
- has read widely and thought about the issue
- is able to critique the validity of the Adult and Paediatric BMI for use in monitoring children's weight
- considers the potential value of parental involvement in monitoring and control of children's weight.

...and now for the conclusions ... based on this analysis

Conclusions – *The BMI is easy to use but, like many other tools, it has its limitations. Firstly, it is important that I use the correct, paediatric, version. Secondly, I need to recognise that this does not give me a definitive measure. I have to put the result in context for the individual child and their family/social setting.*

Giving the result of the BMI to the parents without any additional input may have little effect and could potentially be quite damaging. I need to explain the limitations of the tool and how it could be used. It is also important that I think about how to involve the child's parents in the whole process to avoid the BMI having a demotivating effect. Since there is no clear cut evidence showing the best way to do this, I need to draw on the support of my colleagues as I draw up a plan and evaluate the best way of supporting the child and their family.

Student 2 concludes that

- the Paediatric BMI is a useful tool in monitoring a child's weight
- this too has limitations – nothing is quite 'objective' and easy – a critique
- weight gain and loss are not simple matters, and a mechanistic approach on its own is unlikely to work
- parental and family relationships ...

These conclusions give confidence that this student's Action Plan is likely to be well founded on critical reflection and evidence.

... and now for the Action Plan ... based on these conclusions ...

Action Plan – *The next time I am in this situation I will be able to suggest that one way of assessing whether a child is overweight or obese is to use a Paediatric BMI calculator. I would be in a position to explain how the tool works and the fact that it might give us an indication of whether adopting weight conscious eating habits would be a worthwhile course of action. If families could be trained to use the tool, it would also be a useful way to empower patients/clients and their families by assisting them to monitor their children's weight and plan appropriate interventions to keep their children healthy. In the future I would like to carry out a thorough literature research on family involvement in monitoring children's weight, to find out whether there are any recommendations for good practice in relation to this that I can take forward into my future practice.*

Student 2 has

- read more widely and more critically
- as a result they have been able to come up with some more creative ideas for how to support the child and family effectively in the future.

This Action Plan inspires confidence that it is likely to result in a much better outcome for the client and the family as a whole.

7 | Becoming a critical, reflective practitioner

At the end of the day, what is all this emphasis on being 'critical' about?

It is of course to help you become a critical, reflective practitioner. It is important to patients and clients that the professionals who work with them are not only caring (though this of course is essential), but also that they are well informed, discriminating, and thoughtful in their work.

As you progress through your course, adopting a 'critical' approach to what you do, hear, see and read should become second nature.

You, the practitioner!

You are now qualified, and you are working with a number of families with children who are overweight or obese. One day, a newspaper story catches your eye...

TIMES ONLINE

Tuesday March 20, 2007

A brisk walk to school or quick game of football could halve child obesity

The risk of children becoming obese could be halved with 15 extra minutes of moderately vigorous exercise each day, study results have suggested.

'Fascinating', you think. 'I'd like to know more – this might be relevant to my work with some of the families in my caseload...'

- You believe in practice based on sound evidence. So, even though it seems likely that exercise could help to prevent and treat childhood obesity, you want to know exactly what evidence the headline is based upon.
- You won't be satisfied with the claims of a headline, quoting research - you will want to **track down** the original research report(s), to see how reliable you think the research is. You will then analyse the research critically, looking at the methods and approach so you can make a judgment about ('evaluate') its quality.
- After researching the topic, you identify five studies reporting on council-run programmes for obese children around the UK which you think could be relevant to your work.
- Will you rush off to place children in your area on similar programmes? No, first you will **analyse the results of these programmes, critically**. For example, are they well run? Do they keep good records, and follow-up? Do they work with the whole family to make exercise programmes 'family-friendly'? You find two programmes which are running near to your area, and contact the people who run them, to arrange to speak to them and discuss how they have implemented their programmes.
- As you do this, you will also want to bear in mind other potential factors that could impact on childhood obesity – exercise is likely to be only one of many factors involved.
- By **analysing the evidence for the studies' claims, and thinking about the families you are working alongside** – for example by interviewing and observing children and their parents, and finding out whether the children's levels of exercise are sufficient, you can then decide whether you wish to implement a similar programme to those reported in the studies.

Through **critical analysis of all the factors**: the strength of the evidence in the studies, the circumstances you are dealing with on the ground, the views of the families in your caseload, and balancing these with the resources you have available to you – professional expertise, time, financial resources, and so on – you can then make an informed decision as to whether implementing an exercise programme for children would be an effective strategy to tackle childhood obesity.

The capacity to analyse a problem critically is one you will be developing in the course of your studies, and you will carry it into your professional life. You will get a great deal of personal satisfaction by putting your skills as a critical thinker into practice and in so doing, becoming a better practitioner.

Enjoy!

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Mary Woolliams

Kate Williams

Dan Butcher

Jim Pye

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Woolliams M, Williams K, Butcher D & Pye J (2009) *'Be More Critical!' A practical guide for health and social care students*. (First Edition). Oxford: Oxford Brookes University.

Useful sources for staff and students

Books

Jones S (2009) *Critical learning for social work*. Exeter: Learning Matters. Designed for social work students but useful to any healthcare student or practitioner interested in asking critical questions, critical reading, writing and reasoning.

CASP is a framework that can be used to structure critical analysis of research published in research journals. There are several versions of the framework for different types of research. See www.casp-uk.net/

Definitions of some of the words used in assignment and essay instructions, learning outcomes and assessment criteria can be found in this guide to instruction words produced by the University of Kent: www.kent.ac.uk/uelt/ai/ask/documents/step_1_Instruction_verbs.pdf

Endnote is a software package to help you record, organise and use your references. For more see: www.brookes.ac.uk/library/endnote.html

Evaluating web sources: Brookes library guide to evaluating web sources uses a variant of the six questions to trigger critical thinking: www.brookes.ac.uk/library/guides/evalweb2008.doc

Frameworks: other frameworks for reflective writing used in the School of Health and Social Care include Johns: model of structured reflection (1995)
Holm and Stephenson: A student's own framework for reflection (1995)
Upgrade website includes guidance on these: See under 'Reflective' in the Study skills A/Z'
www.brookes.ac.uk/services/upgrade/a-z.html

Interactive guides to evaluating anything you read include Discern online: a questionnaire with 15 questions you score to help you evaluate a source. www.discern.org.uk/ Click on 'questionnaire'.

Internet detective - a free online tutorial to help you develop internet research skills: www.vts.intute.ac.uk/detective/index.html

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