Using critical thought in a TMA

[MUSIC PLAYING]

KAREN FOLEY: Right. Our next session is about how to do all of that critical thinking. So I'm joined by Janette Wallace in the studio. Jeanette, welcome.

JANETTE WALLACE: Hello.

KAREN FOLEY: Thank you very much. I see you've brought some food.

JANETTE WALLACE: I have brought some food. I didn't realise there were rules about the food. Yes, I've brought some chocolate brains.

KAREN FOLEY: Oh, thank you. Oh, how lovely. I've never been offered chocolate brains in the studio before. Well, that was very kind of you. Excellent. And this is a perfectly appropriate thing to eat during a critical thinking conversation.

JANETTE WALLACE: Yes.

KAREN FOLEY: Lovely. Well, thank you. We shall enjoy tucking into those later.

Now, Janette has been an associate, actually, or tutor with the Open University for quite a number of years, haven't you? And you teach in science from level 1 all the way up to Masters, which is quite interesting, because you're going to have a very broad, I guess, perspective of what critical thinking is all about.

JANETTE WALLACE: Yep.

KAREN FOLEY: Hopefully. So we're going to talk about this. And we're going to change the widgets over now as well. So we've just got one this time, which is about which technique you feel most confident in practicing.

So do you feel most confident in the idea of-- whether you're studying already or perhaps something just, theoretically, you might like to think about-- using content and examples, using themes, or doing things like linking and signposting? So various different techniques there that one can use when, in particular, writing critically. So we will focus a little bit about that.

So Janette, we've been talking a little bit about, John was talking about, what critical thinking was all about. And the key things that he was mentioning was that it was different to criticising something. So it's not just about saying, well, it's no good or this, this, and this. And he also said that it's very important not to use your own voice in doing that.

So we're trying to develop, I guess, an academic argument as opposed to an individual perspective about how rubbish this, that, or the other is. He said that's definitely not critical thinking.

We also mentioned that in terms of the grades, critical thinking can be really important, in particular, from distinguishing, say, a B from an A. So there's issues there in terms of marks, but also, he said that those are quite specific to levels. So at level 1, you are often trying to be descriptive, you are trying to outline things, for example.

And then when you start going into level 2, you're then starting to, I guess, evaluate, compare, and contrast and use other sorts of words that might indicate some critical thinking.

So where do you, as a tutor, see that distinction in terms of your students' journey? When do they start getting the hang of critical thinking? When does it start to matter?

JANETTE WALLACE: In my experience as a science tutor, they do start a little bit in level 1. Maybe not too much. Oh, as an experience, yes, they would, perhaps, analyse a graph-- so something quite simple-- comment on it. So it's not really critical writing yet, but it might be just a few comments about a graph.

It tends to be more beginning in level 2, where they might be writing an essay, where there needs to be arguments or a claim put forward, and they need to start giving evidence to come alongside those arguments and claims that they're writing about.

So I'd say, it begins in level 1, and you start to think a bit more critically as you're studying, and it becomes more apparent as you're answering questions in level 2, I would say, in science, anyway.

KAREN FOLEY: Now, this is an interesting idea, because John said, there was this idea of meta thinking, meta representing ideas. So you're thinking about what you're thinking about, metacognition. But are those students then, who have started to pick up points of a graph, do they even realise that they're critically thinking?

JANETTE WALLACE: Probably not, no. Maybe-- do we actually realise that we're critically thinking all the time in our lives? Everyday activities that we do, we're critically thinking.

So imagine, as I'm a tutor, I might be answering emails and I might get a request from a student for an extension, for example. So I get an email saying, I would like an extension.

In answering that email, I'm actually going to be critically thinking about what I'm going to be doing. So I will be looking at the student. Have they had an extension before? What is the reason for the extension? How long do they want? One day, two weeks. And I will be evaluating that information and coming up with a decision or an opinion based on that to say, yes, you can have an extension or, no, it's not a valid reason or whatever.

So even just doing a simple thing like answering an email, I'm critically evaluating the information in there. So it's everyday life, you will be critically thinking anyway.

KAREN FOLEY: OK. Now, I know that the library are coming to talk a little bit about some evaluation frameworks later and we've got these various ones that we use. In particular, in science, we use PROMPT frameworks and various things like that to help, I guess, identify and compare and contrast various aspects or certain areas around something that we're looking at.

How important then would you say those frameworks are? Because what you're talking about, I guess, is critical thinking in everyday life, the way that we think, we appraise situations. We're thinking beings, so when does it become just normal thinking and critical thinking? How useful are frameworks in trying to get a grip on structuring some of those thoughts?

JANETTE WALLACE: I think they're very useful. You mentioned PROMPT. In science, we use PROMPT quite a lot. It's a type of analysis. PROMPT is an acronym and it stands for a variety of words. And you look at it, well, normally, in articles, say, in science, but you can apply it to a website, anything, really. And it's just a method by which you would look at information and note down different aspects of it.

You could also create a table. There is a table in the critical thinking booklet that's on the Skills for Study website. There's a table in there where you, when you're looking at information, you would write a description and then you would look at any claims in it, any weaknesses or strengths. And so you start noting down what you are thinking, so that when it comes to answering a question, you can use that information to input into your answer.

So things like essays, you'd be looking for arguments and you'd be looking for points of two sides of an argument, perhaps, and so you need to gather that information together. And actually, they're useful, those things.

But what I suggest to my students is to actually get a big piece of paper, for example, an old bit of wallpaper, the back of an old bit of wallpaper, and if you've got an essay, write the essay question in the middle. And then if you've got certain points or arguments you want to make, write them down, and then gather information and add it to your bit of wallpaper and stick it on your wall. And there you have your essay.

And what you do then is construct an essay from this. It's sort of like a mind map, I guess, that you would talk about. And then you would construct lots of arguments and write your essay based on your bit of wallpaper that you've got on your wall.

So I often tell students, think of things visually. So record the information, but then maybe record it visually, little diagrams and things like that. Because often, students don't just think-- they do think visually and it helps them a lot.

KAREN FOLEY: Yeah, no, absolutely. Last week, actually, we had Nicky Harlow, who is an arts tutor, and she was talking to us about mind mapping.

JANETTE WALLACE: Oh, OK.

KAREN FOLEY: And what was really interesting was she was saying, you can have all of these ideas, but how many of these are really relevant to the question? And we were starting to carve off there in the section that was relevant and trying to stick tight and hold to that.

It's interesting, because when we asked people about techniques that they felt confident about using, 80% said using content and examples, they felt confident in using those, whereas only 8% said using themes, and 11% said using linking and signposting. That's gone down just a little bit, actually, as the data has been coming through.

But these are very interesting ideas, aren't they? Because so often, we think that critical thinking has to relate to content, and largely it does. But the other two points about using themes, which may be things that, I guess, emerge from module materials. They might be strands that run through a course. And also linking and signposting, a real sort of writing technique.

Those techniques are also useful for presenting a critical view on something as a tool. But I guess, people aren't so confident using them, perhaps because we've got quite a lot of level 1 students here.

So going back to the idea then of the sort of the 80% or 78% about using content and examples. You've spoken about trying to break some of these things down. So we might use PROMPT or we might use a various sort of framework. And you were saying to students, write them down, get things down.

Can students then think-- do you find that they think, oh, I don't know what headings to put. So I'm fine filling in a table, no problem at all. But then what do I include? What don't I include? And if I-- I used to remember doing this. If I don't include everything, will I be missing a big bit? What would you say about just getting on, and going for it, and trying to look at things in that sort of way, no matter what framework you've got to work with?

JANETTE WALLACE: Well, they need to just, like you say, get on with it, write the answer. But the other thing that you can do that many students don't even think about is, actually, be critically thinking about the question and what it's asking, and actually spending time analysing questions and what is it that the question's asking them to provide.

There are often a lot of information within a question giving you hints and tips and suggestions of where you might go. But this is why sometimes you go off on a tangent, because you write your essay, you think, oh, I don't need to include all of this information. It's about, say, depression, the causes of depression. I'm going to write everything that I know about the cause of depression.

But actually, you need to go back to the question. Perhaps the question only wanted to know about the biology of depression. Perhaps it didn't want to know the psychology of depression. So being critical of the questions will help you in your assignment as well.

KAREN FOLEY: Excellent. Brilliant point. How do you then know when students are submitting an essay that's an A to a B when they're using that critical thought? When do you sit there and think, actually, this student is really applying some of these critical thinking ideas? What signposts or what things do you look for that would indicate that?

JANETTE WALLACE: Well, it's really-- you can tell from the writing that there's a true understanding of the material. So they haven't just passively read the material and noted down information. they've actually looked at the material, understood it, and developed an argument from it, so that they can-- and you can see the argument in the writing. They might, say, give a point, and then they justify it with evidence that is good evidence from maybe the module material, not just from personal experience--

KAREN FOLEY: Very good point.

JANETTE WALLACE: --which is needed on, well, the science modules in particular.

KAREN FOLEY: So they've identified where the appropriate evidence is used and then they're making the points in, I guess, an individual way. So they're saying, well, I've read this here and there's this point. And I guess, just that linking of two things shows some aspect of criticality.

Ben, where's Annie gone?

BEN: So HJ popped up in the chat and mentioned he'd left his bag.

KAREN FOLEY: He's supposed to be at school.

BEN: Yes, he is, but he seems to have left his bag somewhere, so Annie's going to have to try and find it for him. Not really anything I can see around here, but I'll try and have a look.

KAREN FOLEY: It's a lot tidier, actually, to be completely honest, since he's not there.

BEN: Well, I don't want to say anything bad about HJ.

KAREN FOLEY: No, don't, actually.

BEN: No offence, HJ.

KAREN FOLEY: Don't say anything, just in case he's watching, because you never know.

BEN: Definitely. Yes, he's making sure that we're looking for it. So there's a search party out to look for his bag at the moment. So it's all good.

Chat room's going mad.

KAREN FOLEY: Yeah?

BEN: Of course. In terms of how they kind of structure, and they do a lot of visual kind of building together of all of their points for their essays. So Michael Hunter, for instance, loves the spider chart.

KAREN FOLEY: Good.

BEN: And then we have it down to using a combination of mind maps and bullet points to try and picturise it as well. There's also talk of referencing, and good referencing, bad referencing, and where to go to find some references. And there's a lot of people that had mentioned that Wikipedia isn't the best idea to use that.

KAREN FOLEY: Ah, good. Good. Well, we'll listen to what the library have to say all about that later.

BEN: Yeah, which is great. But yeah, overall, everyone's really engaged and loving the content.

KAREN FOLEY: Brilliant. What are some of the questions about referencing, Ben? Is there anything that we need to clarify here before we go on?

BEN: So it was really just about where is a good source, effectively. So that's where Wikipedia then came from. So it's really just from, I guess, my end, just making sure that you're aware that the site you're looking at or the journal that you're looking at is a relevant one to the course, effectively.

KAREN FOLEY: Yeah. That is such a brilliant point. And of course, I'm glad to see some people have been reading the programme, which I hope has sort of sparked that up, because the library will, in fact, be talking about sources, and I guess, certain frameworks that can be used to critically evaluate the extent to which one should believe in some of those sources.

But Janette, what would you say about students who think, I'm going to be really critical, I'm going to go online, I might go into Wikipedia or Google Scholar, and I'm going to find out everything there is to know that my tutor probably doesn't know, and then they'll think I'm being very critical.

What would you say about, I guess, selecting the right material? And when do you know what is appropriate to include?

JANETTE WALLACE: Well, we never say, don't go outside the module materials. If students are interested in a subject, then, yes, go ahead, go and look for external sources, but keep to peer-reviewed articles or textbooks is usually the best way.

I would say that normally an assignment is-- it explains in the assignment what they're looking for. And each module, we're looking to see what you understand about the module materials that are there. So focus in on the module materials and you can include external material, but don't leave out something from the module materials and include something from an external source, because you think it's the brilliant answer. Try and focus in on the module materials for your information.

And there's often links on the module websites to other sources and they're good places to start looking.

KAREN FOLEY: That's a brilliant point, actually, because sometimes I do think students think, oh, yes, I'll go and do that, and you haven't covered X, Y, and Z point. And of course, in a chapter, you can't, can you? There won't be exhaustive representations of things. But it's about being appropriate. And like you say, you're marked on what's in the module.

Ben, is there a question?

BEN: Yes, so we have a question coming from Matthew Cole. And he says, so timeliness is a part of critical thinking, because you have to think about, is this up to date, when analysing your evidence. So I know, from law, in fact, in cases, they're always evolving and always changing. So would you consider having the information as being up to date as a core part for referencing?

KAREN FOLEY: Very interesting. And I guess it depends, doesn't it, on the subject.

JANETTE WALLACE: It depends on the module as well. For one of the level 3 modules that I tutor on, it's one of the final modules, and the students do a literature review, and so they have to do a lot of critical thinking and analysing and writing in that particular module. And they'll choose a topic, and some of that material can be quite old, because the topic is very narrow and there's not much research going on in that particular area. So it depends on the subject and the topic, and whether something is classed as old, I guess.

KAREN FOLEY: Yeah, and how much is going on. One of the courses we teach on, we're looking at things like depression and dementias, both of which are completely different ends of the spectrum. So some things are happening really quickly in terms of dementia treatment and care. And so then, I guess, the year and the relevance of that source becomes a lot more important than it might do with something that's a little bit more longstanding academically.

JANETTE WALLACE: Yeah, and some subjects, there's not the research in it or the interest in it, or perhaps they haven't found anything new for quite some time.

KAREN FOLEY: Yeah, but it's a very good point. And I think it's about being appropriate with those things, and thinking, well, does time really change? Do those things, I guess, have an impact in terms of what we're looking at?

If something's 10 years out of date, are we, as humans, still the same 10 years ago as we were now? And also, I guess, how long it takes to actually get the darn thing published and out there as well. So there can be an issue of things not being possible to be so up to date in certain circumstances. Excellent.

OK. So we've mentioned some tools and some various library things that we're going to look at. Did you want to give, just to sort of end off, did you want to give anything like a life scenario, possibly including chocolate brains? Which I'm very keen to eat. Because I've had a think about this, and I think that they don't comply with any of the notices we've had from security.

JANETTE WALLACE: No, they're not cake and they're not a frying pan.

KAREN FOLEY: Or excessive.

JANETTE WALLACE: No. So we can use them.

KAREN FOLEY: OK, So what is there that we can say then about chocolate? That's a topic of much delight at the Student Hub Live.

JANETTE WALLACE: Well, we could actually think about whether chocolate affects memory, for example. Say we have to write an essay about chocolate and memory. Chocolate affects memory. Now, if this was a level 1 essay, it would be very descriptive. And if it was level 2, we'd be looking for some arguments. So we'd expect you to go off and go through the textbooks and find out, yes or no, chocolate affects memory or not.

So we could have a little think about, what do you think, as a student, do you think chocolate affects memory?

KAREN FOLEY: Well, what is chocolate in the first place? We've got two different types here.

JANETTE WALLACE: Well, yes. Yes. What is chocolate? And is there any evidence that it affects memory? If you went out there and you were looking at the publications of Cadbury's, for example,

KAREN FOLEY: They're one of us. No, no. I'm only joking.

JANETTE WALLACE: If one of the--

KAREN FOLEY: No food in here.

JANETTE WALLACE: --companies who makes chocolate claimed that it was good for memory, for example, is that a valid claim? And you could then go and analyse the information, and evaluate it, and think, is there bias in this research?

It's been sponsored by a company who makes chocolate. Do they want the results to be a certain way? That sort of thing.

KAREN FOLEY: Yeah, yeah, yeah, for sure. No, absolutely. So I guess it's all about thinking about, well, what the source is. So who's actually providing the information? And what is it measuring, I guess?

Sometimes when we get some of these studies, in particular, when they've been published in journal, I suppose, it looks all very sensible, and then it's in a module material, and you think, yep, that's black and white, that makes complete sense. You think, should I really be criticising that? Because clearly, someone's given them money to go ahead and do some of this research.

So how do you then look at, I guess, where the parameters are in terms of what is and isn't acceptable to criticise? Say, for example, with the chocolate and memory, they might have done some word tests. They might have done various things. How much can you really say that is evaluating memory?

JANETTE WALLACE: Well, you need to have a-- well, for some scenario like that, you would have a really good look yourself at the methods that are being used, see if the methods, the tests that they are doing are something that they've done before or somebody else has done before, whether they're actually using background information from other scientists, or whether it's just a major experiment that they've decided to do.

And yes, you're allowed to be critical of anything. And being critical, as I think, John mentioned, doesn't mean criticising, necessarily. It means looking at it and deciding where it's coming from. Is there bias? Being open to what you're reading, really.

KAREN FOLEY: Claire says, surely, spinach should be brain food, not chocolate. And I'm really liking this smoothie. This is making me feel a lot better. Mmm. OK.

So it's all about deciding, I guess then, what you're being asked to do, and not being afraid to look at, really, what that piece of research is doing, and then taking some of those

frameworks that we'll talk about a little bit later to be able to, I guess, deconstruct some of those areas.

JANETTE WALLACE: Yeah, and you sort of think that you'll learn as you go along in your degree. We're not expecting you to do this in level 1. And level 2, you begin to be a little bit critical. There'll be the odd essay here and there, where you need to come up with a point and some evidence to prove your point. So basically, you're proving your point.

And then, but level 3, that's when you'll be going more in-depth and probably being critical of the actual methodologies a bit more. So it's a step-wise progression. And learning a skill, and practicing it, and doing it, you'll get better and better at it.

And John mentioned before how he didn't learn until he got to a PhD, I think. And I was probably, because I don't remember learning at university how to do this. It's something that comes with time and experience, and using some of the resources that we have at the OU.

KAREN FOLEY: Lovely. Thank you very much. Janette, that's been a really, really interesting session, and thank you for coming along. And thank you bringing the chocolate brains.

JANETTE WALLACE: I'll leave you those brains.

KAREN FOLEY: Oh, thank you. I shall enjoy those. That would be wonderful.

And so nice to have that reassurance, I guess, that this is a skill. It can be something that's learned. And I guess then, well, you'd naturally probably encourage students to look at some of those critical thinking booklets that the OU provide.

JANETTE WALLACE: Yeah, absolutely.

KAREN FOLEY: And those are the Skills for Study website as well. And then we'll put a link up on the resources page, if we haven't already, for that critical thinking book. It's a lovely little PDF of a booklet that you can download. It'll give you some tips on critical thinking and some of the tools, in fact, that we're using today. So do do that.

Thank you very much, Janette. That's been--

JANETTE WALLACE: Thank you, Karen.

KAREN FOLEY: --really really useful. OK. So before we have our next guest, Ben, I'd like to come back to the hot desk and see how everything's going with you.

BEN: So we got some selfies in, which is great.

KAREN FOLEY: Good.

BEN: So Marilyn, and this is Marilyn's study buddy, Kenz. That will be right there. What else have we got? So Lee's-- check that out.

KAREN FOLEY: Awww.

BEN: Those fish look brilliant. So that's from Lee. Slightly damped up study buddies, I'm afraid.

There's Lee, hoping for the wild weather today. And I think someone's trying to win something. So thank you very much for that.

This is Kate, with a selfie study this morning. And then we've got a nice desk layout from Pete. So thank you for that, Pete.

And then, as mentioned earlier, Andrea's yoghurt and banana breakfast, which is looking good.

KAREN FOLEY: Awww, very nice.

BEN: And healthy, very healthy. There's not a sign of chocolate there at all.

KAREN FOLEY: There's been a healthy theme today, hasn't there, Ben?

BEN: Yeah, I wonder what that's about?

KAREN FOLEY: Do you think it's because we're looking at critical thinking?

BEN: Maybe. And brain food, et cetera, obviously, with the likes of spinach. There's people who have been talking about fish--

KAREN FOLEY: Yes.

BEN: --which is great for the brain, apparently.

[BUZZING]

[BUZZING]

OK, we'll get--

[BUZZING]

Yeah, sorry about that.

KAREN FOLEY: That's all right.

BEN: So there's a lot of love out there HJ of course.

KAREN FOLEY: Yeah, yeah. How's he getting on? Is he still--

BEN: Doing well. Doing well. We have a--

KAREN FOLEY: Poor Annie.

BEN: --picture for him.

KAREN FOLEY: I think it's terrible she's gone looking for-- what is in his bag? Awww.

BEN: Can you be mad at that face?

KAREN FOLEY: OK, fair enough. Fair enough. So what's so important that's in this bag that he needs to interrupt the Student Hub Live for?

BEN: I don't know, to be honest. It's definitely not back here. I'll get under the desk a bit later. But--

KAREN FOLEY: Has he got popcorn in there?

BEN: Probably. But as we've seen, there is a big health warning against that.

KAREN FOLEY: Yeah, but he's not there, is he?

BEN: No.

KAREN FOLEY: No.

BEN: But it's in the studio, isn't it? We've got to be a bit careful with that.

KAREN FOLEY: Yeah.

BEN: Don't want the food police to come and arrest us. But yeah, we'll see what we can find.

KAREN FOLEY: Yeah.

BEN: Hopefully, we won't get arrested for anything that's in there.

KAREN FOLEY: No. No, fingers crossed, because we like the Student Hub and we'd like to continue doing this, so we don't want to get done on any technicalities, do we? Excellent.

How are people feeling, Ben, then about this whole idea of critical thinking? Are we feeling a bit more reassured now with the whole subject area? I appreciate it's a lot to sort of cover. But broadly speaking, is this idea then that the things can be learned, that things are integrated with module materials, and that it's a little bit different to just criticising things, coming across well.

BEN: Yeah, there's a lot of information that's come up in terms of questions on the best way of doing it, and how they're actually going to picturise it, and make it make sense, effectively. There's a few art students on here that are wondering how you actually critically evaluate something with art, which is a subjective kind of view of things. So there's a few interesting questions that are coming up from there, which I will drop in when I get a hold of them some more.

KAREN FOLEY: Brilliant. That's a really, really good point, actually. Because I think, so often, we think, oh, well, it's very easy to critically evaluate something objective, something from the sciences, maybe, or social sciences. But art, when you've got a piece of writing, that can sometimes bring about different subjects. And there are different ways of doing that

within each discipline as well. So yes, in particular, philosophy, that can be an interesting odd one to critically evaluate.

[MUSIC PLAYING]