Title of Module: *Metacognition*

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Video 1: Introduction to Metacognition

Introduction

Welcome to our module on Metacognition. These three videos will explain metacognition in the context of higher education and will show you how you can use metacognitive strategies to be a more effective student.

In this video, we'll discuss the theory of metacognition, how and why you might encounter it in your classes, and why it's useful.

What is metacognition?

Metacognition in very simple terms is thinking about thinking. That is, it's the kind of thinking and reflection that people do about their own thinking and learning processes, and it often involves monitoring your current progress toward a goal, choosing specific strategies to use, and reflecting on the efficacy of your strategies.

Metacognition is a higher-level, executive thinking skill, not just focused on *what* you are doing or learning (that is, just the content of your classes) but also on the *how, why,* and *how well* you are doing or learning it (that is, the process of your learning).

Why is metacognition useful for college-level learning?

Metacognition is one of the keys to success in college and beyond. It helps students process and synthesize what they learn, and transfer it to new contexts for future assignments or future classes.

At an extreme, without metacognition, some students may proceed blindly acquiring more and more facts without any understanding of how or why to connect them. Other students may persist in studying for an exam or writing an essay the same way they always have, using the exact same techniques, strategies, and process, without reflecting on them, or even changing them, despite the fact that they're not getting the kind of grades they want.

How might I encounter metacognition formally in my classes?

Your professors might ask you to write a formal reflection to accompany a specific paper or assignment. For example, you may be asked to attend a play or concert, outside of class, which is related to your course content, and then reflect on what connections you might make to the course readings. You may be asked to write a fairy tale, Op-Ed, or book review and then reflect on how writing something in this genre was similar to or different from the process of writing an academic paper. You may be asked to write an introduction to a portfolio of your work—You may be asked to write an introduction to a portfolio of your work—academic writing, creative writing, art, or performances. You may be asked to reflect on an oral presentation you did, and assess yourself and your groupmates, according to the criteria your professor provides. All of these are examples of assignments you may encounter that include metacognitive elements.

How can I be more metacognitive about my own learning?

There are many things you can do on your own to be more actively metacognitive about your own learning. The next two videos in this series will discuss specific metacognitive strategies you can use when doing course readings, studying for exams, doing course homework, writing papers, and participating in class for better transfer, retention, and success.

Video 2: *Metacognitive Applications, Part 1: Exams and Problem Sets*

Doing Course Readings

Doing the reading for a course is an excellent area of your coursework to start applying some metacognition. First of all, in general, do not just sit down and do the reading from beginning to end. Always be strategic about doing your reading.

Pre-Reading Checklist

Ask yourself:
What am I reading? What genre is it?
Who wrote it? What do I know about the author? When was it written? What do I know about the historical context?
How long is this reading? How dense is it? How long do I think it might take me to do?
How is this reading similar to other readings I've done for this course, or for other courses?
Why did my instructor assign this reading, and why now? Is there anything specific my instructor wants me to get out of this reading?

Not all of these questions are going to be relevant for every reading in every course. However, many of them are, for any given reading, and running through a checklist like this before starting your reading actually saves you time, and helps you process and retain the reading better.

Let's assume that you've kept up with the course readings, that you've highlighted your textbook or used whatever other note-taking or annotating strategies work for you, and now it's time to prepare for an exam, or write an essay based on a longer course reading. What do you do now?

Many times, students will go back to the reading and plan to revisit all the course readings again. That's not a bad goal, in theory, but in practice, it will take quite a long time, and it's possible that you may have a better return for your investment of time by doing something different.

Inductive and Deductive Reasoning: Studying/Reviewing Readings Checklist

What kind of notes have you taken, or did your instructor provide, on the readings?
What kind of class notes did you take, or notes/slides did your instructor provide?
Revisit your notes before you actually re-read any readings.
What kind of questions did you have while reading or during class? Have all your questions been answered? If not, consult the table of contents, index, or glossary in your course books to see if you can answer your own question first. You may then want to contact members of a peer review group or your instructor in order to get your questions answered.

If your notes or the course slides contain an outline of the readings, move to the outline next. If you don't have an outline, look at the table of contents in the textbook, or consider quickly outlining the reading if the table of contents is too general to be useful. Don't outline the readings paragraph-by-paragraph—that will take forever and may not be that helpful. Instead, start with a larger, conceptual or thematic outline, thinking about what you will need this outline for—what kind of paper will you need to write about these readings? Or, for some classes, what kind of exam will you be taking about these readings? Always keep these questions in mind, plan your time, and adjust your strategies accordingly.

Doing homework

Doing your homework more metacognitively is a great way to get more out of your courses day to day. Maybe your instructor assigned a summary of a specific reading, or section or reading, or maybe you were asked to respond to a specific question about one of the readings or course concepts. Don't just sit down and dash this off right away! Instead, think about how this assignment might fit into the larger scheme of the course. Does it lead up to another paper assignment in a week or even a month? Does it connect back to a previous set of readings or different thematic focus from earlier in the course? Why might your instructor want you to summarize *this* reading, or respond to *this* question? What's the purpose of this homework? Who will be reading it? Sometimes, instructors may collect homework and respond to them individually; sometimes, small homework assignments like this may just be shared in class and not actually collected. If your instructor doesn't collect and individually respond to every homework assignment, you actually have *more* work to do than if she or he does—it's your responsibility to take whatever was said in class about the assignment, in general, and apply it to your specific assignment. Your instructor may give follow-up homework in the days or weeks to come that assume you learned something from the first homework, and whatever debrief of it was held in class, so if you have unanswered questions about the homework, be sure to follow up with an email or visit to office hours. In all cases, make sure to collect all your homework so you can revisit it and see how the pieces fit in to construct the big picture.

The Big Picture

The most important thing to think about when you are trying to be more metacognitive in your preparation for course readings or homework is always to think about the purpose of whatever step or strategy you are using. Why are you doing this? How might it help you? What did you do last time to read similar readings, or complete a similar homework? How well did that work? In other words, how prepared did you feel, and how prepared were you in actuality? Always keep these considerations in mind.

Video 3: *Metacognitive Applications, Part 2: Papers, Class Participation*

A Metacognitive Approach to Writing Papers

Let's talk about how you can be more metacognitive in your paper assignments, in your writing class and in other courses as well. These strategies and tips can be applied to all paper assignments, whether or not your instructor formally assigns some of these as intermediate steps in the writing process.

Writing is a Process

First of all, remember that writing *is* a process, even though, in most cases, it is only the finished product—the final version of your paper—that gets a grade. Students with effective metacognition know, when they turn in a paper, how good of a paper it is for that specific assignment—they have a good idea of its strengths and weaknesses, if any, and they have a clear sense of how it will stack up next to the criteria their instructor uses to assess the paper. So, how do you get to that point?

Break down the assignment!

Start by breaking down the assignment. What are you being asked to do? Is there a prompt given to you, or do you have to come up with your own assignment? Are the sources given to you, or can you (or must you) do some research and find your own sources? How much of the assignment is being completed as a process with the class? For example, is there a required prospectus due, or any other pre-writing? Is there a day on the syllabus described in such a way that it sounds like in-class activities will help you generate ideas for the paper? Are drafts due? If so, how many, and when? How will you get feedback on these different stages of the assignment? Sometimes, instructors only give feedback in conferences, or office hours, while other times they will write comments on drafts and return them. Often, there is at least one stage of the assignment when you will only get feedback in class or from a peer group (in peer review, for instance), rather than just from the instructor.

Start writing before you write!

For most people, the process of writing starts with thinking, even before you sit down and face that blank screen with a new document. Build in some time to your schedule in the week or weeks before you will need to actually write the paper to just *think* about the assignment. Bring the assignment sheet with you while waiting to meet a friend for lunch, for example, and re-read it then, jotting down questions or ideas as they occur to you. If you're writing on a specific book or essay or short story, bring the book with you and dip in and out of it, revisiting sections of it with the paper assignment in mind.

When you are ready to write, collect all of your notes and jottings in one place, and quickly get them all in one document. Many writers like to start by roughly listing down everything that they think they might want to say, and also any questions that are still occurring to them. For now, just get things down into the document—don't worry about form, order, etc.

Outlines

One piece of standard advice is to write an outline before you write a paper, and while that's good advice in general, many students don't write outlines because they think of them as something rigid and overly formal that cramps their process of generating ideas rather than aids it. Other times, students have very rich and interesting ideas, but when they sit down to write an outline, they quickly start oversimplifying their ideas and reducing things down to a very simplistic, five-paragraph essay form. Neither of these approaches is the best way to use

outlines. An outline is a tool—use it if it helps you, but don't use it if it doesn't—or, even better, change the way you are using it. Consider writing reverse outlines on an intermediate draft, or doing storyboards instead of outlines to help you organize your ideas.

Reverse-outlines are technique for writing an outline of the draft you already produced, and then looking for the logical connections between ideas. Storyboards are a more flexible form of generating and organizing ideas, in place of a traditional outline, before you produce a draft.

Choose Strategies Carefully, and Monitor Their Effectiveness

Remember, metacognitive approach to writing papers is about much more than just saying "plan ahead," or "make an outline." Think about *what* you're doing and *why* you're doing it—what have instructors or tutors or peers said about your papers in the past? What weaknesses do you tend to have, as a writer, and how can you work proactively to address those in this particular paper assignment? If you're using a particular strategy merely because that's the way you "always" do things, stop and reconsider—is there a better strategy for your needs on this particular assignment? How is this assignment similar to, but also different from, other papers you've written before? How might you alter your strategies accordingly?

After You Get Your Paper Back…

After you submit your paper, and receive it back with comments and a grade, don't just focus on the grade and toss the paper away. Think about the comments—were they roughly what you expected? Why or why not? What did your instructor comment on that was new to you, and how can you use that feedback in future assignments? What do you not understand about the feedback, that you might want to ask for clarifications on? If you had to summarize the comments, how would you do that in bullet form?

Class Participation

Class participation is often required, or expected, in small seminar-style classes, and it may be a make-it-or-break-it portion of your grade. Sometimes students fall into one of two class participation styles—either silence, or else actively raising their hand and participating all the time—based on their personality, their previous experiences, or a combination of the two. A metacognitive approach to class participation means that you don't passively sit still and wait for inspiration to strike or for your ideas to take perfect form before you raise your hand in class.

Class Participation Checklist

Set goals for yourself. What do you want to be able to do, as far as class participation, by the middle of the semester?
Plan strategies to help advance yourself toward your goals. What things can you do when doing the readings and/or preparing for class to help meet your goals?

Build in time to monitor your strategies and reflect on your progress. After a week, what do you notice about your participation and your preparation strategies? What is easier for you? What is still challenging? What can you do to change your strategies at this point?

In Conclusion

These three videos have just briefly described metacognition, and have given you (just) a few examples of how it can play a role in enriching your college-level learning. Continue asking questions about your learning, continue assessing your strengths and weaknesses, and continue taking a strategic and active approach to all aspects of your coursework—as you move among genres, professors, levels, and even different departments, a metacognitive approach will make for a richer and more effective learning experience.

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