

## Three Phases of Learning

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You are responsible for your own learning and no one can learn for you. How efficiently do you learn? Let's take a look at and discuss the three phases of learning and how you can improve your learning to become more efficient and effective. Walvoord and Anderson (1998) identified a very efficient model of who does what, where, and when in university courses.

To learn, humans must simultaneously choose from the complex sensory input being presented, select and access related prior knowledge from memory (including content and processing skills), and then forge new meaning. Humans have a very restricted ability to maintain focus on all this information at once, a limitation often referred to as working memory capacity. As a novice in your discipline, your prior knowledge on your topic is neither robust nor well-organized yet, and this slows your ability to access pertinent content and skills unless you start to organize this knowledge before class.

**Exposure:** This is the first phase. You must be exposed to information before you can learn it. You have the ability to start this process before you attend your first lecture instead of waiting to class time to begin with new content. In terms of how humans learn, the face-to-face lecture is too fast, too transient, and too one-sided for you to get much exposure to the new ideas. Promoting your thinking and writing in your discipline requires that you process information deeply.

There are a variety of ways to access content knowledge before you encounter it in class. You generally have a text (physical or electronic) that will be assigned to the course. Pre-reading, taking notes, and then attempting to explain it to someone else (a fellow student, or...) will help you grapple with new concepts and will allow you to identify where you have questions or gaps in your understanding. Asking yourself questions about the content engages your brain in the puzzle that is knowledge. You need enough time to process ideas and move them toward long-term memory before new ideas are presented. You can also access videos, online lectures, and other relevant content to get familiar with the basic concepts. Think of it as learning the language of the discipline.

**Processing:** This is where you will be involved in the most difficult aspect of learning: making meaning from information and ideas. You will work on your own or in the lab or on group assignments doing problems, projects, and using various connections within and among the concepts that you are working with. You must also think about your thinking (be metacognitive) to promote deep learning. It is hardest to do this kind of mental activity when working alone and generally easier to process complex ideas with the guidance of faculty and/or peers such as study groups and/or peer tutors.

**Feedback:** In the third phase of learning, feedback is critical. Even with pre-reading, study, interactive projects, and assignments, if you don't get feedback or assessment on the quality of your thinking, you may not be challenged to think beyond the first response. You need to get prompt information on how you are doing and how you can improve. Working with others, using the feedback mechanisms provided with your text, quizzes, exams, and discussing your projects with your instructor or a learning centre tutor are all viable options for you to step up to the requirements and expectations of the course for your best learning. Your analysis of this feedback information is part of your motivation to learn and it also guides you in productive directions for learning.

Your most efficient approach to improve your learning sees you take active responsibility for these three phases of learning. Research by Bart (2013) indicates clearly, your time spent this way is more productive than more traditional methods, and therefore your learning becomes more efficient.



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### Executive Function

Executive function is a set of mental skills that help you get things done. These skills are controlled by an area of the brain called the frontal lobe. Executive function helps you manage time, pay attention, and get things done. You can use this work chart to enhance this function in your learning.

**Exposure – What I will do to increase my exposure to the subject(s) I am learning.**

**Processing – Ways that I will be active to increase my processing.**

**Feedback – How I will ensure that I get feedback and how I will use it for my learning.**

#### References:

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