University 101: Study, Strategize and Succeed

UNIVERSITY 101: STUDY, STRATEGIZE AND SUCCEED

Kwantlen Polytechnic University Learning Centres

Kwantlen Polytechnic University

Surrey, BC

Contents

Acknowledgements

Learning in University: The Critical Skill of Metacognition

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Plan-Monitor-Evaluate Connection
This chapter introduces you to a learning cycle based on three steps: **planning**, **monitoring**, and **evaluation**. Understanding this cycle is connected to developing the skill of *metacognition*, which you will learn about in this chapter. At the beginning of each of the remaining chapters in this book, you will discover how the skills you will learn connect to the cycle.

Learning Objectives
By the end of this chapter, you will be able to: • Identify ways that the information in this book will support your learning journey. • Define the term ***metacognition.*** • Describe the steps in the planning-monitoring-evaluation cycle. • Apply the planning-monitoring-evaluation cycle to your learning process by asking key questions at each stage.

Develop a Foundation for Post-secondary Education

Welcome to university! Whether this is your first time in post-secondary education, or whether you are returning to studies, you're arriving with some goals you want to achieve. Perhaps you are taking a focused program to lead you into your desired career. Perhaps you are exploring courses in different areas, providing a foundation for future specialization. Wherever you are in your journey, you find yourself in a learning environment that is different from one you have experienced before.

A good foundation for university is learning how to learn. By taking the time to read this book and work through the exercises included, you are investing in the skills that will support you in all of your classes and future learning. Successful students share a set of skills and habits in common. The good news is that these skills are not a secret; anyone can learn the skills that support successful learning. By taking some time to learn proven study strategies, you will be able to reach your learning goals, and avoid the pitfalls that can take you off-track.

Who is this book for?

This book focuses on the skills you'll need to be successful in undergraduate courses or other adult education classes. If you are:

- New to university studies
- Returning to university after some time away
- A mature student
- An international student
- Or a continuing student who wants to improve their current skills and strategies

This book is meant to support you in your journey. In this chapter, you will focus on a skill called *metacognition*, which you will apply to the learning cycle. These concepts will support your understanding of the study strategies presented in each of the chapters that follow.

Explore the Planning-Monitoring-Evaluation Cycle

What is metacognition? The plan-monitor-evaluate cycle

Have you ever wondered what the most successful students do differently from other students? Students who have developed effective ways of learning have mastered a skill called *metacognition*. In simple terms, metacognition is understanding your own thinking and learning processes. In other words, it is "thinking about your thinking". Metacognitive skills include planning your learning, monitoring whether your current learning strategies are successful, and evaluating results of your learning. Improving your metacognitive skills is associated with increased success in all of your academic life.

  How do you gain the skill of metacognition? One way to think about developing metacognition is gaining the ability to plan, monitor, and evaluate your learning.

The Learning Cycle (Image Credit: Christina Page)

Planning involves two key tasks: deciding *what* you need to learn, and then deciding *how* you are going to learn that material.

Monitoring requires you to ask "how am I doing at learning this?". In monitoring, you are constantly tracking what you have learned, what you don't yet know, and whether your study strategies are helping you to learn effectively.

Evaluation involves reflection on how well you met your Learning Objectives after completing a unit of study, or receiving feedback (such as a test or assignment).

Key Questions to Improve Your Learning

At each stage in the learning cycle, there are key questions that you will ask yourself to support your learning process. In the chart below, you will identify the key question for each stage in the cycle, along with the other questions you will want to consider.

Key Question	Other Questions to Ask Yourself
What do I need to learn? (Planning)	• What are the Learning Objectives for this class? • What do I already know about this topic? • What are the concepts I need to master before my next test? • What do I want to learn about this topic? • How do I distinguish important information from the details?
How am I going to learn the material? (Planning)	• How can I integrate textbook reading with lecture notes? • What active learning strategies will support my learning? • Will I study alone or with a study group? • What charts or visuals will help me reorganize or process this material? • What memory strategies can I use to remember key words and concepts? • How can I connect with my instructor in office hours?
How am I doing at learning this material? (Monitoring)	• What concepts do I understand well? • What concepts are still confusing for me? • Can I explain the material to someone else without referring to notes? • Can I create and answer self-testing questions about these concepts? • What other strategies could I use to learn this material? • Am I using the supports available to me (e.g. office hours, tutors)? • How can I make this material more personally relevant to me?
Did I learn the material effectively? (Evaluation)	• To what extent did I meet the Learning Objectives for this unit? • What in my exam preparation worked well? • What in my exam preparation did not go well? What do I want to change? • How did my exam answer compare with the suggested answer? • What key components did I miss? • How will what I have learned help me in my next courses?

1 2

Try it!

Two key questions in the *Planning* phase of learning are: (1) What do I already know about this topic? and (2) What do I want to learn? In this exercise, you will apply these two questions to your knowledge about learning strategies.

[Download a printable worksheet for this exercise.](#)

What do I already know about learning strategies for university?   **What do I want to know about learning strategies?**

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1. Chick, N. (2017). *Metacognition*. Retrieved August 31, 2017, from https://wp0.vanderbilt.edu/cft/guides-sub-pages/metacognition/↵/
2. Tanner, K. D. (2012). Promoting student metacognition. *Cell Biology Education*, 11(2), 113–120. https://doi.org/10.1187/cbe.12-03-0033↵

Learn How to Use This Book

Photo Credit: Emily Tan

How do I use this book?

If you are new to university studies, or new to post-secondary education in a Canadian context, the best way to use this book is as a guide to your first semester. Take a few moments in the days before class, or your first few weeks, to get acquainted with the material in these chapters. Refer back to chapters along the way to find key information.

If you are a continuing student, you may already be aware of some areas where you want to strengthen your skills. Dive into the chapters that seem most relevant to you.

How is this book organized?

In each chapter, you will see the following features to guide you:

- *Plan-Monitor-Evaluate Connection.* This helps you to identify where each skill fits into the larger framework for organizing your learning.

- **Learning***Objectives* guide you through what you can expect to learn by reading and completing the chapter exercises.

- *Try it!* activities allow you an immediate opportunity to put new information into practice in your current courses. You will benefit most from this book if you take the time to try the new skills presented and see how they work for you.

- *Extend Your Learning* sections provide you with opportunities to continue exploring the concepts you are learning through connections to other helpful information.

Let's get started!

Plan for Success: Knowing Yourself and Setting Goals

Plan for Success: Knowing Yourself and Setting Goals

Plan-Monitor-Evaluate Connection
Sometimes it is helpful to do some self-evaluation, before moving to the *planning* part of the Learning Cycle. To help you in this process, this chapter begins with the *evaluation* part of the Learning Cycle. Before you begin your planning, you will consider where you are now. What strategies do you already know how to use? What are your strengths as a learner? What do you hope to improve? The information from your evaluation will inform your goal setting and planning for the semester ahead.

Learning Objectives
By the end of this chapter, you will be able to: · Evaluate your current learning skills and strengths using the Multiple Intelligences framework. · Evaluate your current study strategies and identify new skills you hope to gain. · Set your learning goals.

Evaluate Your Learning Skills and Strengths

Even if the university environment is new to you, you already come to learning with a set of skills, strengths, and strategies that can contribute to your success. Before you move on in this chapter, take some time to reflect on the following questions. You may wish to write your answers on this page, or in another learning journal.

1. Consider a learning experience in the past that was successful for you. What were you able to learn?

2. What did you do that helped you to succeed in your learning?
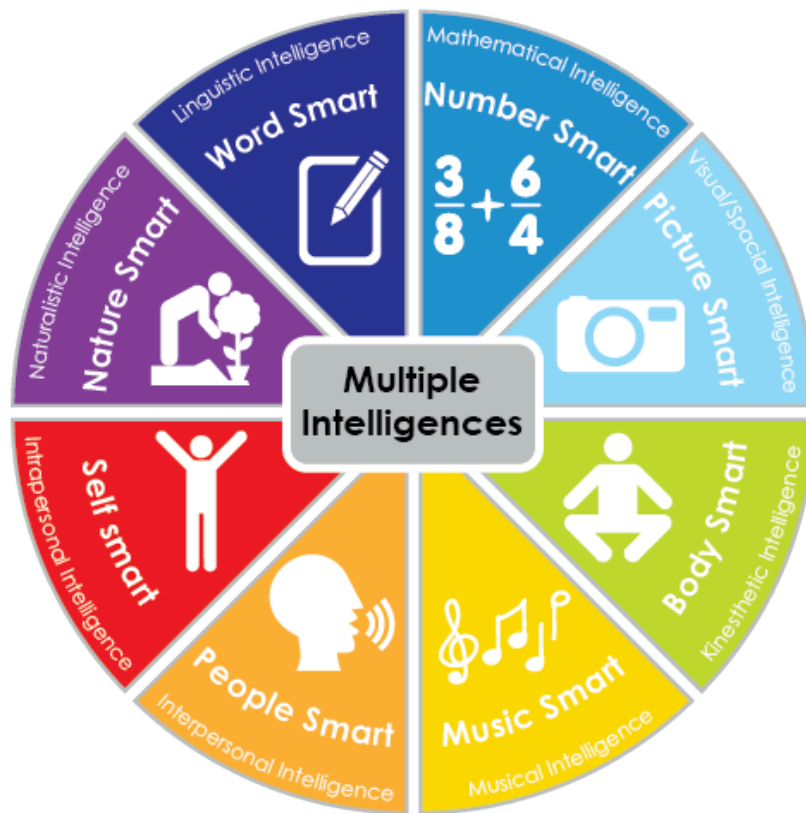
Gardner's Multiple Intelligences (Image Credit: Graeme Robinson-Clogg)

Often, we associate learning in university with strengths in reading and writing. Though it is true that reading and writing are important skills used in many courses, you can also apply other learning strengths to contribute to successful learning.

One framework for evaluating your personal strengths is *Multiple Intelligences*, based on research by Howard Gardner. Gardner proposed that there are eight different ways of learning, creating things, and solving problems. Everyone uses all eight of these intelligences; however, in each individual, some intelligences are areas of strength, while others are weaker. This accounts for our different preferences in learning.

Intelligence	Description
"Word smart" – Linguistic Intelligence	The capacity to use language to express what's on your mind and to understand other people. People who are high in this intelligence are sensitive to language, meanings, and the relationship of words. They engage easily with vocabulary activities, grammar, poetry, essays and plays.
"Number smart" – Mathematical Intelligence	People with a highly developed logical-mathematical intelligence understand the underlying principles of some kind of a causal system; or can manipulate numbers, quantities, and operations. Abstract thinking, counting, organizing; and logical structures are preferred by people high in this intelligence. They also like critical thinking activities, breaking words into smaller parts and reassembling them.
"Picture smart" – Visual/spatial Intelligence	The ability to represent the spatial world internally in your mind. Spatial intelligence can be used in the arts or in the trades and sciences. If you are spatially intelligent and oriented toward the arts, you are more likely to become a painter or a sculptor or an architect than, say, a musician or a writer. These people tend to be keen observers, able to think in three dimensions, and like to use metaphors. Learning materials that work well for them include: graphs, charts, colour codes, guided imagery, pictures, posters, and mind maps.
"Body smart" – Kinesthetic Intelligence	The capacity to use your whole body or parts of your body – your hand, your fingers, your arms – to solve a problem, make something, or put on some kind of a production. These people have good body control and fine motor skills; and are often active and animated. They need "hands-on" learning opportunities, like shop, labs, games, skits, and plays.
"Music smart" – Musical Intelligence	The capacity to think in music, to be able to hear patterns, recognize them, remember them, and perhaps manipulate them. People who have a strong musical intelligence don't just remember music easily – they can't get it out of their minds, it's so omnipresent. People will be sensitive to rhythm, pitch, intonation, and can remember tunes and rhythms easily. They tend to like poems, plays, jazz chants, rap music, songs, and musically guided imagery.
"People smart" – Interpersonal Intelligence	Understanding other people. Anybody who deals with other people has to be skilled in the interpersonal sphere. This is a social intelligence and those who are high in this area are outgoing and interactive; sensitive to others' moods, feelings, and motivations
"Self smart" – Intrapersonal Intelligence	Having an understanding of yourself, of knowing who you are, what you can do, what you want to do, how you react to things, which things to avoid, and which things to gravitate toward. They tend to know what they can do. They tend to know what they can't do, and they also tend to know where to go if they need help.
"Nature smart" – Naturalistic Intelligence	The ability to discriminate among living things (plants, animals), sensitivity to other features of the natural world (clouds, rock configurations) as well as a good sense of their surroundings and environment. They are also sensitive to changes around them, both outdoors and indoors.

12

It is also important to note that we can continue to develop all of our intelligence, and use multiple intelligence to learn content in any course. Our brains continue to grow and develop over time, even into adulthood. Taking full advantage of these opportunities for growth can support your learning in any course.

Try it!

As you read about these ways of being intelligent, what do you discover about your learning strengths? Consider how you can use the theory of Multiple Intelligences to understand your strengths and learn content in any course.

1. How are you smart? Identify your 2-3 strongest intelligences.
2. How will you use these intelligences to learn?

Now, consider how you might use all eight of the intelligences to learn in one of your courses.

Download a printable worksheet for this exercise.

Study topic:_____

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1. Adapted from: Armstrong, T. (2017, May). *Multiple intelligences in the higher education classroom.* Keynote presentation presented at the Learning Specialists Association of Canada National Conference, Montreal, QC.
2. Kwantlen Polytechnic University Learning Centres. (n.d.). *Learning with your mutiple intelligences*. Retrieved from https://www.kpu.ca/sites/default/files/Learning%20Centres/ Study_MultipleIntelligences_LA.pdf

Intelligence	Learning Activity
Verbal intelligence	
Mathematical/logical intelligence	
Visual/Spatial intelligence	
Kinesthetic Intelligence	
Musical Intelligence	
Interpersonal Intelligence	
Intrapersonal Intelligence	
Naturalistic Intelligence	

Evaluate Your Current Learning Strategies

ADAPT – Add upper level business skills audit

As you become aware of your learning strengths, you will be able to select effective learning strategies. Consider the following questions: Who are you *now* as a learner? What skills and strengths do you already bring to the study process? As you move to the next phase in your business studies, you already bring a foundation of habits and practices with you. Some may be supporting your success, others may be hindering you from achieving your goals.

In the next learning activity, you will review a chart of helpful study strategies that contribute to success. Put a checkmark beside the strategies you are currently using. How do these practices contribute to your success? You may also observe that you are not yet using a range of effective learning strategies. Don't worry! As you continue to move through this book, you will be exposed to a number of strategies that can contribute to your success.

Try it!
Download a printable worksheet for this exercise.

Set Goals to Move Ahead

Image Credit: Graeme Robinson-Clogg

Now that you have evaluated where you are in your learning journey, you can begin to set goals for the semester ahead. One common tool for effective goal setting is developing SMART goals. These goals are:

Specific: Your goal will clearly define what you are going to accomplish. You will ask and answer the **What** and **Why** of your goal.

Measurable: You will identify criteria for measuring progress toward the attainment of each goal you set. This will be the definition of **How** you will attain your goal.

- How will you know when the result that you want has been achieved?
- How will you verify your achievement/performance of this goal?

Attainable: Is it possible for you to achieve your desired goal? Can you see a path to your accomplishment? You are the **Who** in this goal setting process. It is your positive attitude that will allow you to draw on your current strengths and develop new ones as you meet your goal.

Relevant: Realistic goals must represent an objective toward which you are willing to work and which are relevant to you. You need to identify **Where** this goal will take you. A goal can be both high and realistic; you are the only one who can decide just how high your goal should be. Just be sure that each of your goals represents substantial progress.

Time Bound: You need to create a sense of personal urgency by setting times for each step along the way.

Knowing **When** you have to accomplish a task keeps to on track and accountable. What needs to be done by when? Be timely! [12]

Consider an example. I could say that my goal is to become a better runner. This goal is undefined, and I will not be able to tell if I have achieved it. A SMART goal would be, "I will complete a ten kilometre run in under one hour by the end of June after training with my running group twice weekly". Note that this goal is time-bound, and includes specific and measurable criteria that help me to know if I have successfully achieved it.

Try it!

Begin to set your learning goals for this semester. Choose one goal, and use the SMART goal system to check that your goal is relevant and achievable. Click here to download a printable worksheet for this activity.

Specific	
Measurable	
Attainable	
Relevant	
Time-bound	

Extend Your Learning

Goal setting can be challenging, but clearly identifying where you want to go on your learning journey and how you intend to get there will help you in the long run.

- Learn more about the importance of goals and continue your practice of goals setting by using this SMART goals template

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1. Doran, G.T. (1981) There's a S.M.A.R.T. way to write management's goals and objectives. *Management Review* 70 (11): 35–36.
2. Locke, E. A. (1968) Toward a theory of task motivation and incentives. *Organizational Behavior and Human Performance* 3 (2): 157

Your First Week: Getting Organized and Finding Resources

Your First Week: Getting Organized and Finding Resources

Plan-Monitor-Evaluate Connection

This chapter provides you with resources for the **planning** stage in the learning cycle. Looking at your course presentations/outlines before the start of the semester is a key part of the planning process. Your course presentation will help you answer questions like:
 	
   · What are the learning objectives for this class?
   · What will I need to learn before each test or exam?
 	
When you have found the answers to these questions, you are able to create a solid plan for the semester ahead.

Learning Objectives

By the end of this chapter, you will be able to:
 	
   · Analyze your course presentation to plan your learning.
   · Connect with your instructor by using office hours and e-mail effectively.
   · Use the university resources available to you.

Analyze Your Course Presentation

A Course Presentation (also called a syllabus or course outline) is prepared by your instructor, and is like a roadmap for your learning journey ahead. You will want to look at your course Moodle page before the course starts to see if it is available to you. If not, you will receive it on the first day of class. Sometimes, instructors will email them to you in advance.

Course presentations include the following:

- **Course Description:**

Description from the Course Outline, plus anything else the Instructor would like you to know about the overall intention of this course.
This is the general overview of what you will be doing in this course.

- **Contact Information:**

Instructor name, email, phone, classroom, office hour times, office location.
This should contain all the information you need to contact your instructor when you need to ask questions, meet with them, or share information with them.

- **Course Materials:**

Required and Additional Materials. These may include: reference to handouts, library materials that are used in the course, or other materials.
You will need all of these items. Get them from the indicated sources. To start your semester off in the best possible, you will want to purchase or rent any required textbooks before the first day of class.

- **Tentative Schedule of Topics, Classes, and Assignments (may change):**

Including times, attendance requirements, external activities, field trips, etc.
This information should go into your scheduling device (planner, calendar, online schedule, etc.). In the next chapter, you will learn strategies to create a semester and weekly schedule based on the information in your course presentation.

- **Assignments:**

Assignments and due dates specified, may include rubrics/checklists.
Assignment due dates need to be scheduled in advance so you can plan your work, research, and study. Your course presentation may also include some guidelines and rubrics that indicate what is required for each assignment, and how the assignments will be graded. Rubrics and checklists must be referenced for projects to ensure that you meet the specified criteria.

- **Tests and Exams:**

Exam dates, may include other ways that testing will be done.

   Put these test dates into your calendar as soon as you receive them. You will use this information to plan your study times, so you are well prepared for any tests, and can avoid cramming at the last minute.

Research Proposal	Due Sept. 27	10%
Reseach Essay	Due Oct.18	20%
Midterm Exam 1	Nov. 25	30%
Midterm Exam 2	Nov. 22	30%
Final Exam	Dec. 6	10%

Keep track of these due dates in an accessible calendar.

Image Credit: Rawia Inaim

- **Policies:**

Kwantlen Polytechnic University policies regarding class conduct, evaluation, testing, late assignments, and plagiarism are observed for all courses. Everyone at KPU must comply with the policies laid out. Make sure you understand any policies that are mentioned in your course presentation.

   By getting to know your course presentation, you can help to prepare yourself to meet the expectations of the semester ahead.

Try It!

   Find a course presentation for one of your classes. You can find these on Moodle by logging in to courses.kpu.ca with your student number and password. Try to find the following information:

1. How to contact your instructor.
2. What textbooks or course materials you will need before the first day of class.
3. What assignments you will need to complete and what will be required.
4. When your tests and exams are scheduled.

If you have any questions about what you read, e-mail your instructor, or plan to visit them in their office hours.

Download a printable worksheet to guide you through this process.

Connect With Your Instructor

A key to your post-secondary success is knowing your instructors and what they identify as important in each of your courses. Developing good relationships with instructors involves good communication in and outside of class times. They are available to meet, communicate, and talk with you, but you must plan how to connect with them during their available times. It is part of an instructor's job to talk to learners outside class, and most successful learners take advantage of that option. It is your right to visit instructors during office hours and discuss any problems or concerns that you have in their course.

In-Class Communication

To build your relationship with your instructor in-class, consider ways that you can show your interest in the course material. Some ways to do this are:

- Listen actively during class to determine what is most important to the instructor.
- Avoid arguing with the instructor. If you disagree with something said in class, try to ask questions about the topic after class.
- Read the textbook before class and prepare questions to ask.
- Let your instructor know what interests you about the course.

Communicating in Office Hours

Instructors hold office hours outside of class. Whenever possible, try to meet your instructor during these times. You can use office hours to ask questions about the course material, to get clarification about the requirements for an assignment, or to learn more about a topic from the class that you find particularly interesting. Some tips for using office hours effectively:

- Arrive on time to be respectful of your instructor's and other students' time.
- Come prepared by bringing your textbook and other course materials.
- Prepare questions ahead of time.
- Summarize key points to make sure you understand.

Communicating By Email

Instructors often receive many e-mails from students. To write an effective e-mail, consider the following:

- Use your university e-mail account when possible.
- In the subject line, write the course name and topic of your email
  (e.g. *BIOL 1100 Lab Report 2).*
- Use a professional greeting in the e-mail ("Dear" rather than "Hey!").
- Write your question or concern in short, clear sentences.
- End your e-mail with an appropriate conclusion (e.g. "Thank you in advance for your help", or "Thank you for your time and consideration").

- Allow time for your instructor to respond – don't expect an instant reply.

From: Student@email.kpu.ca
To: Instructor@kpu.ca
Subject: English 1100 Research Proposal

Hello Professor,
This is John Smith from your English 1100, Section 10, and I have a question regarding our research proposal assignment that is due on October 6. How many sources are we required to include in our proposal?

Thank you in advance for your help.

Best regards,
John Smith
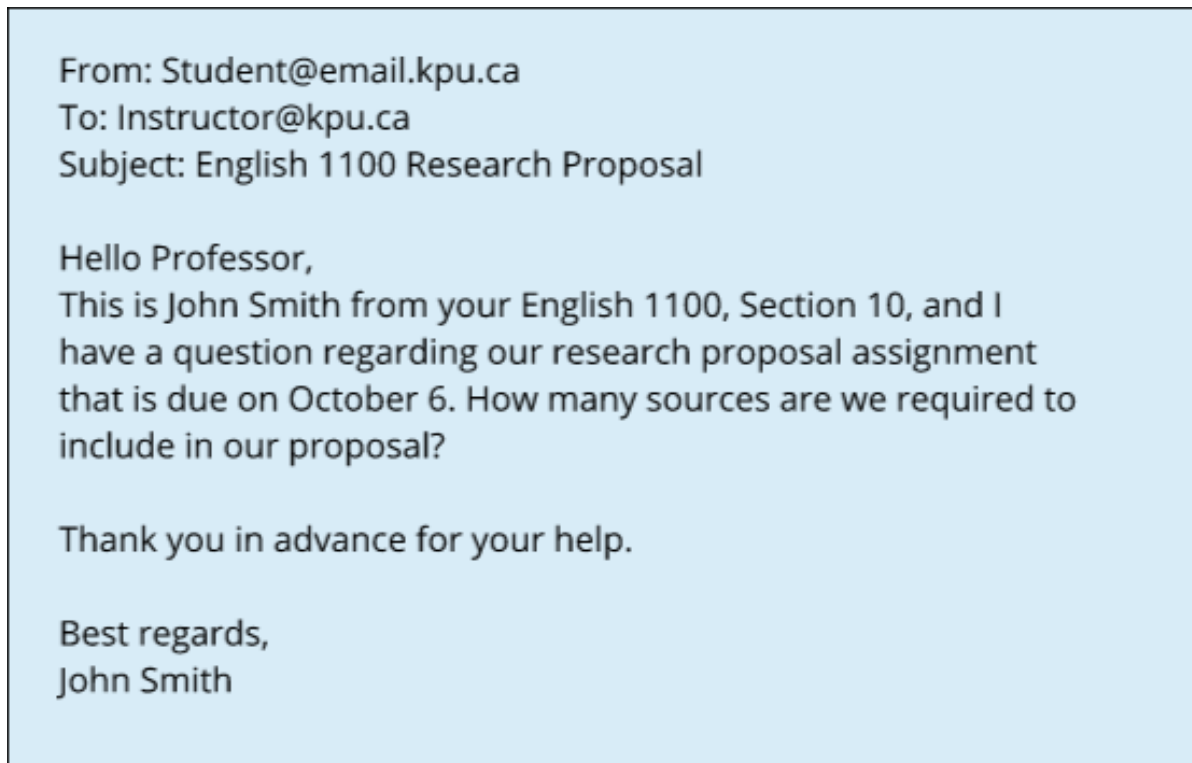
Image Credit: Rawia Inaim

By showing an interest, taking time to communicate with your instructor throughout the course, and using e-mail effectively, you will be well on your way to building a good relationship that will support your communication and learning. [1]

Try It!

If you have already reviewed your course presentation, you will know when and where you can contact your instructor during office hours. Plan to drop by your instructor's office hours this week. If you don't yet have a question to ask, consider having a brief conversation with your instructor about one of the following topics:

1. What is one thing I can do to / be successful in this course?
2. How do the concepts I will learn in this class connect with other courses I will take in the future?
3. What can I do to improve my class participation/ writing/ presentation skills?
4. What interests you most about your field?

Download a printable version of this activity.

Extend Your Learning

Communicating with your instructor may seem straight forward, but there are some strategies that can improve your communication significantly and further support your in-class learning.

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1. Study Guides and Strategies. (n.d.). *Influencing teachers and improving classroom communication skills*. Retrieved from http://www.studygs.net/attmot2.htm ↵

- [Find out more about improving your classroom communication skills and 10 "What would you do?" scenarios](#) online here.

Get to Know University Resources

One of the benefits of student life at university is the availability of on-campus resources to support you academically, and with your overall personal growth and career development. These include:

- Choosing a program of study, major, or deciding if you should change your current program.
- Choosing a career path and finding work opportunities.
- Accessing scholarships and financial aid.
- Learning to use the library to conduct research.
- Understanding the expectations of your current courses and getting support with challenging concepts.
- Developing your learning and study success skills.
- Managing your physical and mental health.

Within the university, services are available to support you with these concerns. The costs of these services are supported by your tuition, so it is wise to take advantage of all of the available resources. At university services, you will find support from dedicated professionals who focus on supporting students like you. Often, you will also find peer support networks, where other students who have shared your experience can support you in your learning journey.

Image Credit: Rawia Inaim

Available services include:

- *Academic Advising* provides you with information about how to choose courses. Specialized advising is also available for International students and students with disabilities.

- *Career Services* can help you develop a resume and find work opportunities to support your career development.

- *Co-operative Education* provides opportunities to include paid workplace learning in your degree program.

- *Counselling* provides both personal and career counselling to students.

- *Indigenous Services for Students* provides support to Aboriginal students.

- *IT (Information Technology)* can help with student email and accessing software for courses.

- *Learning Centres* provide peer tutoring, academic skills workshops, and learning strategist consultations to support you as you develop learning skills.

- *Library* provides research support, training in citation styles, group study rooms, and access to a wide range of books and databases.

- *Accessibility Services* provide advising and accommodations for students.

- *Sport & Recreation* helps you to maintain an active lifestyle.

- *Student Awards and Financial Assistance* provides information on scholarship and bursary opportunities available to students.

- *Student Association* organizes student clubs, activities, and additional student services.

Try It!

Take some time this week to get to know your university resources. Visit a student service either in-person, or online. Find out how this service can help you with a current concern. If now is the right time, make an appointment.

Manage Your Time: Study Strategies for Busy Students

Plan-Monitor-Evaluate Connection
Time management is a critical skill in the **planning** process. In this chapter, you will learn how to use your course presentations to make a semester schedule. You will also learn how to create weekly schedules and daily to-do lists. As you choose good learning strategies to decide *what* you will do to learn, you will use time management principles to determine *when* you will study.

Learning Objectives
By the end of this chapter, you will be able to: • Use your course presentations/outlines to create a semester schedule. • Create a balanced weekly schedule that includes time for independent study. • Organize your day for maximum productivity using daily task lists. • Apply strategies to escape the procrastination trap.

Work, study, family, friends, healthy living…how do you make everything fit? We all have the same 168 hours of time each week. How do you want to budget that time? As you work through this chapter, you will discover a time management system that begins by looking at the big picture with a semester schedule. Then, you will create a weekly schedule and evaluate if this schedule reflects your overall goals and priorities. Next, you will consider systems for organizing a daily to-do list. Finally, you will discover some strategies to overcome the procrastination trap.

See Your Semester at a Glance

See Your Semester at a Glance

A semester schedule gives you a visual picture of the assignments, projects, tests, exams, and field trips that will happen during the semester. If you are taking a number of classes, this is a tool to be able to see what is coming up next.

A semester schedule includes important assignments, tests, exams, and other key events that will happen in your life during the next months. You may wish to use colour to indicate different classes, or to distinguish between your academic events and personal events.

Look at the example semester schedule below. What do you notice about what the student chose to include? What will you include on your semester schedule?

	SUN	MON	TUES	WED	THURS	FRI	SAT
Sept 3 - 9 Week 1		LABOUR DAY				KRISTEN'S HOUSE WARMING	
Sept. 10-16 Week 2							EDMONTON TRIP
Sept. 17 - 23 Week 3	EDMONTON TRIP			MATH 3140 ASSIGN #1 10%	MATH 3315 ASSIGN #1 2% PHYS 2010 ASSIGN #1		
Sept. 24-30 Week 4	NEWLAND'S BRUNCH	MATH 3250 PRESENTATION 10% WRITE-UP 10%	PHYS 2010 ASSIGN #1	MATH 4240 ASSIGN #1 7% MATH 3140 ASSIGN #1 10%	MATH 3315 MIDTERM #1 20% PHYS 2010 ASSIG #2		
Oct 1 - 7 Week 5				MATH 4240 ASSIGN #2 7%	MATH 3315 ASSIGN #2 2%		
Oct. 8 - 14 Week 6		THANKSGIVING DAY	PHYS 4010 ASSIGN #1	MATH 4240 TEST #1 6%			
Oct. 15-21 Week 7		MATH 3140 ASSIGN #3	PHYS 4010 ASSIGN #2	MATH 4240 ASSIGN #3 7%	MATH 3315 ASSIGN #3 2% PHYS 4010 TEST #1		
Oct. 22-28 Week 8		MATH 3250 TEST 15%		MATH 3140 ASSIGN #4	MATH 3315 MIDTERM #2 20%	MATH 4240 ASSIGN #4 7%	SPOKANE TRIP
Oct. 29 - **Nov. 4** Week 9	SPOKANE TRIP			MATH 4240 TEST #2 6%	MATH 3315 ASSIGN #4 2%	MATH 4240 PROPOSAL 2%	THOR 7:30PM SWETA'S B-DAY
Nov. 5-11 Week 10		MATH 3250 PRESENTATION 10% WRITE-UP 10%					
Nov. 12-18 Week 11	NEWLAND'S BRUNCH	REMEMBRANCE DAY (Observed)			MATH 3315 MIDTERM #3 20%		
Nov. 19-25 Week 12					MATH 3315 ASSIGN #5 2%	MATH 4240 PROJECT 38%	
Nov. 26 - **Dec. 2** Week 13	GREY CUP			MATH 4240 PRESENTATION 10%		MATH 4240 PRESENTATION 10%	
Dec. 3-9 Week 14							MATH 3315 FINAL EXAM 30%
Dec. 10-16 Week 15		MATH 3250 FINAL EXAM 15%	PHYS 2010 FINAL EXAM 40%	PHYS 4010 FINAL EXAM 40%		STAR WARS	

An Example Semester Schedule (Image Credit: Jarren Ralf)

Try it!

To create your semester schedule, gather the course presentations from all of your courses. These will tell you the dates of examinations, tests, assignments, and presentations. Add all of these dates to your semester schedule. Use colour to distinguish different classes if you wish. Print out this schedule and post it in a place where you will see it often.

[Download a printable semester schedule.](#)

Semester Schedule

Time	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Week 1						
Week 2						
Week 3						
Week 4						
Week 5						
Week 6						
Week 7						
Week 4						
Week 8						
Week 9						
Week 10						
Week 11						
Week 12						
Week 13						

Create a Weekly Schedule that Works

Your next step is to create a weekly schedule. This will include your class times and any regularly schedule commitments. A weekly schedule is a good tool to evaluate whether your time use allows you to meet your overall goals. Do you have enough time for study? Is there time to maintain a healthy lifestyle?

The following principles will guide you as you create your weekly schedule:

1. Record class and lab times in appropriate day/hour blocks on a time schedule sheet.
2. Record travel times to and from the university and between classes.
3. Record meal times, family times, laundry times, etc.
4. Record all regularly scheduled personal activities such as meetings, employment and athletics.
5. Record any special activities you need to do or want to do on a regular basis.
6. Schedule a preview time (30 minutes) immediately before each class whenever possible. During the preview, review all or some of your notes in preparation for the upcoming class. If you have two or three classes in a row, preview from last to first class.
7. Schedule a review time immediately after your classes (30 minutes) whenever possible. Use this time to edit and summarize your notes. You can also look over any assignments that were given and begin to plan when and how you will do them.
8. Schedule intensive pre-reading/study/review time for each class. Try to schedule some study time each day for each class. Learning is more effectively and efficiently accomplished in shorter regular sessions than in longer irregular sessions. Also, use more of the day (i.e. morning, afternoon) for studying. Pick the times of days when you are most alert.
9. Schedule to start your study period with the courses you like least or that you're not doing well in. Try to study the same subjects at the same time each study day. Although this seems to be a mechanical way of scheduling, you will find that such a routine can help you develop a pattern for efficient and effective learning.
10. Schedule a weekly review (WR) for each course. Do it at the end of the week if possible. This weekly review gives you an opportunity to go over the past week's notes along with the reading assignments to see what you have been learning in the past week during class and study time for each course. You can also look ahead to plan the next week and determine how much reading you need to do, what projects are due, and if any tests are scheduled.
11. Keep open some time for daily physical activity. Remember, research indicates that regular exercise will not only give you a general sense of well-being, but can reduce tension and help you accomplish a tough class, study, and work schedule.
12. Label some empty blocks of time as OPEN for academic or personal needs.
13. Schedule some time during Friday, Saturday, and Sunday for you to play, relax, or do whatever you

want to do. This is your reward for sticking to your schedule. In addition, you'll enjoy your free time more. Because it is scheduled you do not need to feel guilty.

Here is an example of what a completed weekly schedule might look like:

Time	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
8:00 AM	Breakfast/ Get ready	Breakfast/ Get ready	Breakfast/ Get ready	Breakfast/ Get ready	Breakfast/ Get ready	Breakfast/ Get ready	Breakfast/ Get ready
9:00 AM	Travel to School	History Prep	Ameri. Lit. HW	Can. Lit. Hw	Can. Lit. Hw	Open Study	Open Study
10:00 AM	Can. Lit. Prep	Ameri. Lit Prep	Travel to School	Hist. HW	Can. Lit. Hw	Open Study	Open Study
11:00 AM	Poli. Sci	Phil. Prep	Poli. Sci.	Break + Lunch	Hist. HW	Open Study	Open Study
12:00 PM	Poli. Sci	Travel to School	Poli. Sci.	Ameri. Lit. Hw	Break + Lunch	Travel to Work	Travel to Work
1:00 PM	Can. Lit.	History	Phil.	Phil. HW	Hist. HW	Work	Work
2:00 PM	Can. Lit.	History	Phil.	Break + Snack	Phil. HW	work	Work
3:00 PM	Can. Lit.	History	Phil.	Can. Lit. Prep	Phil. HW	Work	Work
4:00 PM	Travel /Lunch	Ameri. Lit.	Travel /Lunch	Poli. Sci.	Poli. Sci.	Work	Work
5:00 PM	Free Time	Ameri. Lit.	Free Time	Hist. HW	Poli. Sci.	Work	Work
6:00 PM	History Prep	Ameri. Lit.	Poli. Sci HW	Break + Dinner	Ameri. Lit. HW	Work	Work
7:00 PM	Poli. Sci Prep	Travel Home +Dinner	Phil. HW	Ameri. Lit. HW	Ameri. Lit. HW	Travel Home	Travel Home
8:00 PM	Free Time	Free Time	Free Time	Phil. HW	Free Time	Free Time	Free Time
9:00 PM	Free Time	Phil. Prep	Free Time	Free Time	Free Time	Free Time	Free Time
10:00 PM	to Sleep	Sleep	Sleep	Sleep	Sleep	Sleep	Sleep
Key	Self-Care	Commuting	In Class	Free Time	HW/ Study	Work	

Example weekly schedule (Image credit: Rawia Inaim)

Try it!

Create your weekly schedule for this semester following the principles you have just learned. Follow your schedule as you have created it for two weeks. After two weeks, make any adjustments necessary. Perhaps you need more time to study for a difficult class, or perhaps you would like to add a recreational activity to maintain a good life balance.

Download a printable weekly schedule.

Time	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
7:30-8:00						
8:00-8:30						
8:30-9:00						
9:00-9:30						
9:30-10:00						
10:00-10:30						
10:30-11:00						
11:00-11:30						
11:30-12:00						
12:00-12:30						
12:30-1:00						
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3:30-4:00						
4:00-4:30						
4:30-5:00						
5:00-5:30						
5:30-6:00						
6:00-6:30						
6:30-7:00						
7:00-7:30						
7:30-8:00						
8:00-8:30						
8:30-9:00						
9:00-9:30						

[12]

Organize Your Day for Maximum Productivity

Keep your "To Do" list somewhere you check regularly, such as your smartphone home page or desktop screen.

Today's Task List

Goals	Time	Priority	Done
Read chapter 9 for Biology	45 mins	High	✓
Draft thesis for history paper	1 hr	Low	
Find 3 peer-reviewed sources for History paper	1 hr	Moderate	✓

Image Credit: Rawia Inaim

Now that you can see the big picture of your semester and weekly priorities, the next step is to create a daily to-do list to prioritize your tasks. You may wish to use a paper planner for your lists, or track your tasks on your smartphone. Do what works best for you. Here are some principles to consider as you create your to-do list:

1. At the end of each day's work, take a few minutes to plan the following day.

2. Write down each task you hope to accomplish. Indicate which tasks are the highest priority.

3. Break large tasks into smaller units. Consider what you will accomplish in one work period (usually about one hour before taking a break). Create tasks that are well-defined; you should know when the task is finished. For example, "work on research paper" does not have a clear goal. By changing this to "find three academic articles for research paper", or "create research paper outline", you will be able to clearly see what you need to accomplish. You will also be able to reward yourself for successful completion.

Check off tasks as you complete them. This will increase your sense of accomplishment and create forward momentum. When you have finished the day's tasks, celebrate with a well-earned reward. Move any tasks yet to be completed to tomorrow's task list.

<div style="border:1px solid; padding:0;">

Try it!

For the next week, commit to a system for daily to-do lists. Use a paper planner (the KSA distributes these to students for free), or an app. There are many excellent free task management apps available, including Wunderlist (www.wunderlist.com) and Microsoft To-Do (https://todo.microsoft.com/)

After you have implemented your system for one week, re-evaluate. Continue what works for you, and make any modifications needed.

</div>

Extend Your Learning

Want to explore further ways of managing your time? The following links will lead you to more information and helpful templates.

- Learn to budget your time with this Learning Aid.
- Use this worksheet to learn more about creating a to-do list.
- Learn more about know how your phone can help you to manage your time using apps with this worksheet.

Escape the Procrastination Trap

What is procrastination?

Definition: To delay an intended course of action despite expecting to be worse off for the delay.[1]

Why do we procrastinate?

Procrastination is not a "one size fits all" problem. We procrastinate for a variety of different reasons. The first step in tackling procrastination is to do some detective work – to figure out – without judgment – why it might be that you procrastinate.

Reasons for Procrastination

People procrastinate for a variety of different reasons:

1. Not being sure of how to do the task at hand. If a task seems difficult, or if you're not sure you know how to complete it, it is natural to avoid tackling it.

2. The task to be done doesn't interest you, and it seems preferable to work on tasks (e.g. other courses) that are more in line with your personal interests. You may lack motivation to work on the task.

3. Fear of not doing well on the task. Trying hard at a task and failing might seem worse than failing because you didn't try. Often a root cause of this type of procrastination is perfectionism.

4. Or, you might fear the opposite. Some people fear being too successful, because the result of this success is that people will expect more of you the next time.

Identifying the cause of procrastination can help you move towards a solution. Here are some suggested solutions for each of the four causes mentioned above:

1. Steel, P. (2007). The nature of procrastination: A meta-analytic and theoretical review of quintessential self-regulatory failure. *Psychological Bulletin*, 133, 65-94. http://dx.doi.org/10.1037/0033-2909.133.1.65

I'm not sure I know how to do it

Look for ways to develop your skills in the areas where you feel unsure of your abi

- Make an appointment with a math or accounting tutor to learn how to so
- Make an appointment with a writing tutor to develop an outline for your p
- Learn from library staff how to use the research tools that are available
- Make an appointment with a learning strategist to learn how to read mor

Rather than procrastinating, you can empower yourself to be successful. The s

I'm not interested in this task/it isn't motivating for me

- Choose to "just do it", and complete the task, allowing yourself guilt free t
- Consider your attitude towards things that are uninteresting – is your atti
- Consider how the task at hand relates to your long-term goals. For examp

I'm afraid of failing/I'm afraid of what success might mean

- Consider whether you have developed unrealistic standards for yourself.

2

Getting Started

A key aspect of overcoming procrastination is developing strategies to get started. Often, committing to complete one small task can be enough to begin moving ahead. For example, just taking out your laptop, creating a document, and typing the title can create some forward momentum.

A well-known technique for managing time that can help with procrastination is called the *Pomodoro Technique*. This technique is a method of managing procrastination by breaking down your work periods into small, manageable units. Here's how it works:

Imaged Credit: Rawia Inaim

1. Choose the task you want to accomplish.
2. Set a timer for 25 minutes- no interruptions are allowed!
3. Work until the timer rings.
4. Take a short break.
5. Do up to 4 Pomodoros and then take a longer break.
6.

Why the Method Works

The Pomodoro technique can help you push past procrastination and create forward momentum because it requires you to commit to only a small, manageable period of work. In addition, it can help you discipline yourself to work without interruptions, and can create awareness of how much time individual tasks take. Lastly, the method allows you to reward yourself with frequent breaks, which maintains motivation.

Try it!
Take some concrete steps this week to defeat procrastination.   1. Of the reasons listed above, why do you tend to procrastinate? What is one step you will take this week to move ahead on your project.   2. Try the *Pomodoro technique* once this week. Do you find that it helps you get started and stay focused?

2. Adapted from: Oregon State University Academic Success Centre. (n.d.) *Six Reasons People Procrastinate*. Retrieved from success.oregonstate.edu/six-reasons-people-procrastinate ↵

Learn From Lectures and Texts

Learn From Lectures and Texts

Plan-Monitor-Evaluate Connection

Textbooks are different from other books — they are a key learning resource for your courses. Textbooks help you to **plan** as you identify key learning objectives at the beginning of your chapter. As you see what you need to learn through your reading, you will be able to **plan** a strategy for mastering the material.

In this chapter you will learn how to use a strategy called S3QR, which includes creating questions to guide your reading. These questions become a tool to **monitor** how well you remember the concepts in the text as you use them for later review and self-testing.

Learning Objectives

By the end of this chapter, you will be able to:

- Describe the ways in which reading connects with your learning goals for your courses.
- Use the SQ3R Strategy to read purposefully and make effective notes.
- Identify ways in which notetaking supports your learning process.
- Create effective notes that can be used for review and exam preparation.

Set Your Purpose for Reading Textbooks

Photo credit: Emily Tan

You probably already know that you *should* read your textbooks. However, if you are like many students, reading textbooks might take second place to other priorities, such as attending class and completing assignments. Perhaps it may not seem clear how committing time to weekly reading will support you in achieving your learning goals. Consider the following reasons for committing to regular reading.

1. Reading Textbooks helps you get the most out of your class time. This is *especially true* if you are able to read your textbook before going to class. Why? Because if you are hearing a lot of material in lecture for the very first time, it can often be difficult to take good notes and understand how all of the concepts fit together. If you are able to read your textbook before you go to class, you will already have a general understanding of the most important topics in that unit. You will already know some of the key words, and you will have a good idea of what you already understand well and what you might not quite understand yet. That way, when you go to class, your instructor's lecture will support and strengthen the things that you're already starting to learn. You'll be equipped to ask good questions and to participate well in class. Overall, you will get more out of the time you spend in class.

2. Most textbooks include some additional resources to help you study. These may include:

- *Learning Objectives* at the beginning of the chapter. These help you to know right away what are the most important things in the chapter, and what you should be able to do by the time you have finished studying this part of the course.

- *Definitions and Glossaries:* Often, textbooks will highlight new words. These might be at the side of every page, the words might be in bold, or the textbook might include a glossary of key terms.

- *Study Questions and Practice Problems:* If you are able to do a few of these every week as you go along in the course, you will be more prepared for exams. This is especially true in classes like accounting, math, or chemistry, where you are tested on how well you can solve problems.

- *Online Videos and Quizzes:* These can help you to review the key concepts in your class, and to strengthen your understanding of concepts that may be difficult for you.

3. Content from textbooks is often included on exams. In university, in addition to the time you spend in class, you are also expected to spend some time in independent study. Most instructors will include questions from the textbook on the exam, and these things might not have been covered in class. If you rely only on your class notes, you might miss some key concepts that you need to learn in your course.

4. You become a better reader by reading. Learning to read textbooks well prepares you to read other complex material that you will encounter throughout your studies and later on in your career. Reading efficiently is a skill that you will use throughout your life – not just in your current classes.

Read with a Purpose: The SQ3R Strategy

Textbooks require different reading methods than you might use for a novel, magazine, or website. When you approach a textbook, you are using it as a tool to learn the material that you need to know for your course. To achieve your aims, you will want to read with a purpose. One method for reading purposefully is called SQ3R. The acronym SQ3R reminds you of the elements of this reading method – Survey, Question, Read, Recite, Review – that will help you become a more effective reader.

Image Credit: Rawia Inaim

Survey

- Survey the title: Think about what you may already know about that topic.
- Survey the introduction: It gives you an idea about how the chapter is organized, and what you will be learning. If your chapter includes a list of *Learning Objectives*, you will want to pay particular attention to these. The *Learning Objectives* outline the key concept you will want to master as a result of your reading.
- Survey anything in bold: Subtitles are labels. Other bolded items may be definitions that you will need to know.
- Survey the pictures, charts and graphs: Glance at these to pick out things that seem interesting or informative.
- Survey the summary at the end: This will review and give you the key points in the chapter.
- Survey the questions at the end of the chapter: These will help focus your attention on the main points.
- Survey your course syllabus/course presentation and see what topics the Instructor is focusing on.

Question

When you have completed your survey, you will begin reading, focusing especially items that you identified as important when you survey. Write “*Who, What, Where, When, Why, and How*” questions for each subtitle or definition (you can do this as you progress through the reading). These questions will become the headings in your notes.

Read

Read to answer the questions you have created. Once you have found the key information needed, move to the next step.

Recite

- Recite the answer to your question out loud. Do this as if you are explaining to a study partner.
- After reciting, write this information down.
- Repeat this step for each question that you created.

Review

- Stand back and look at the chapter as a whole.
- How do the ideas and facts you learned from each subsection fit together?
- Review your notes to be sure they make sense to you.[1]

Try it!
Open your textbook to the chapter you are reading and complete the steps below. Download this printable worksheet for a template to guide you as you read and take notes.

SURVEY: After surveying the chapter, what do you think it will be about?

QUESTION: Turn the first subtitle into a question.

READ: The section to answer the question.

RECITE: Answer the question in your words. (Repeat for the rest of the chapter)

REVIEW: After reading the chapter, what new things did you learn?

Extend Your Learning

Not all courses use textbooks as primary sources and you may encounter academic journals during your required readings.

- A resource to guide you through the steps of reading academic journals is available online. The resource first helps to identify the characteristics of an academic journal article and describes a technique to pull out important information.

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1. Robinson, F.P. (1978). *Effective Study* (6th ed.). New York: Harper & Row.

Take Notes from Lectures – That You'll Actually Use

You've got the PowerPoint slides for your lecture, and the information in your textbook. Do you need to take notes as well?

Despite the vast amount of information available in electronic formats, taking notes is an important learning strategy. In addition, the way that you take notes matters, and not all note-taking strategies lead to equal results. By considering your note-taking strategies carefully, you will be able to create a set of notes that will help retain the most important concepts from lectures and tests, and that will assist you in your exam preparation.

Two Purposes for Taking Notes

People take notes for two main reasons:

1. To keep a record of the information they heard. This is also called the *external storage* function of note-taking.
2. To facilitate learning material they are currently studying.

The availability of information on the internet may reduce the importance of the *external storage* function of note-taking. When the information is available online, it may seem logical to stop taking notes. However, by neglecting to take notes, you lose the benefits of note-taking as a learning tool.

How Note-taking Supports Learning

Taking notes during class supports your learning in several important ways:

1. Taking notes helps you to focus your attention and avoid distractions.

2. As you take notes in class, you will be engaging your mind in identifying and organizing the main ideas. Rather than passively listening, you will be doing the work of active learning while in class, making the most of your time.

3. Creating good notes means that you will have a record for later review. Reviewing a set of condensed and well-organized notes is more efficient than re-reading longer texts and articles.

Effective Note-taking Strategies

While taking notes is helpful, not all note-taking strategies are equally beneficial. Many students try to write down everything the instructor is saying – this is especially true for students who take notes with laptops. Unfortunately, this strategy does not help you to engage in critical thinking and to identify important concepts.

When taking notes in class, focus on writing down key concepts, rather than recording all of the instructor's words. For many students, this may be a good reason to take notes by hand, rather than with a laptop. In some studies, students who have taken notes by hand have outperformed those taking notes with a laptop on tests. Taking notes by hand also allows you to avoid distracting yourself and others with websites, e-mail, or online chatting during class time.[1]

1. Oppenheimer, D. (2017, January). *On noteworthy notes: Not all note taking is created equal*. Webinar presented at the Learning Specialists Association of Canada. Retrieved from https://lsac.wildapricot.org/page-18154 ↵

Rather than taking word-for-word notes, consider writing an outline of the lecture's most important points and how they fit together. Additionally, watch for other information that your instructor emphasizes, either verbally or with gestures, and add these key concepts to your notes. Leave a wide margin on one side of the page to write down key words and questions after the lecture. At the bottom of each page of notes, leave room to write a short summary of the information on that page. Your page layout might look something like the image on this page.

Use Your Notes to Study

Now that you have created a set of notes from lectures and readings, how do you get the most benefit from them?

If you have been following the methods described in this chapter, your notes will include questions that you have answered by reading or listening. Rather than simply re-reading notes, which is less effective, you will benefit most if you use your notes as a self-study tool. [2]

1. Read the question in your notes out loud. Cover the answer with a sheet of paper.

2. Recite the answer out loud as best as you are able, or jot it down on a piece of paper.

1 - Notes (before and during class)	2 - Reduce for Recall
3 - Recite	
4 - Recall	
5 - Review	

An example note-taking template (Image Credit: Rawia Inaim)

3. Compare your answer with what you have in your notes. If you are correct, move on to the next question. If you have difficulty with a question, review the related material in your notes again. You may wish to use a sticky note or flag to mark questions you need to review again.

As you take good notes, you will strengthen your learning skills as you become more proficient at identifying key information from lectures and texts. By including study questions in your notes as you take them, you will turn your notes into a powerful tool for later review and exam preparation.

Try it!

Don't just take notes, *make* notes. This week, try to practice at least one note taking strategy you learned from this chapter. Use the questions you created to review and test yourself throughout the week. How does this method compare with re-reading your notes?

Try this template to guide you through the process.

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2. Dunlosky, J., Rawson, K. A., Marsh, E. J., Nathan, M. J., & Willingham, D. T. (2013). Improving students' learning with effective learning techniques: Promising directions from cognitive and educational psychology. *Psychological Science in the Public Interest*, 14(1), 4–58. https://doi.org/10.1177/1529100612453266

Study Smart – Use Powerful Strategies to Remember, Understand and Apply

Study Smart – Use Powerful Strategies to Remember, Understand and Apply

Plan-Monitor-Evaluate Connection
In this chapter, you will be focusing on strategies to master important course concepts. You will do this by active learning that promotes deep engagement with course material. This chapter focuses on the second part of the *planning cycle*, where you answer the question "How will I learn this material"? As you use these strategies, you will also *monitor* how well you are learning, by actively assessing how well you can answer self-testing questions about the material you are learning.

Learning Objectives
By the end of this chapter, you will be able to: • Choose strategies for active learning. • Try new memory strategies to effectively retain important course concepts. • Effectively master course content by using questioning strategies.
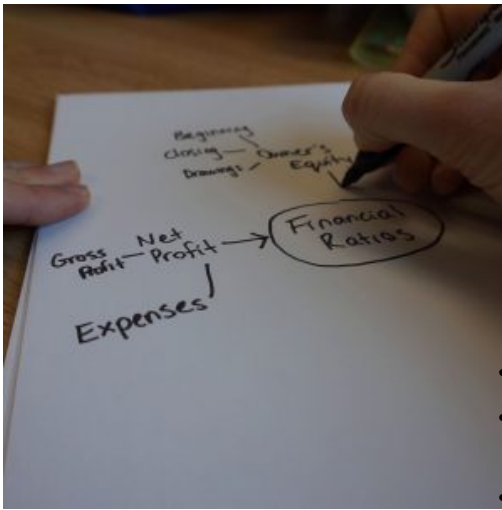
Choose Strategies for Active Learning

Now that you have identified *what* you need to learn, you now need to make a plan for *how* to learn, and to put it into practice. The best kind of learning is *active* learning. When you learn actively, you apply a variety of strategies to your course material, including reading, writing, reflecting, solving problems, organizing material visually, self-testing, and working with others.

Active learning requires you to choose a method to process and recall the material you are working to master. Some activities that promote active learning are:

- Using flash cards.
- Making a visual organizer that summarizes key chapter concepts, such as a mindmap or chart.
- Organizing key ideas into a new chart.
- Answering questions or creating a practice test.
- Working with a study partner or group.
- Writing about the material you are learning.

Not only is active learning a more engaging and fun way to study, it also allows you to use your study time more effectively. Contrast this with an activity like re-reading a textbook or notes multiple times, which is a more passive way to learn. Though you may be seeing the material, you are not engaging in an activity that requires you to store the information in your memory, and to practice retrieving it.[1]

> **Try it!**
>
> Consider the material you are learning in one of your courses this week. Create a list of active learning strategies that you can use to study this content.

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1. Michael, J. (2006). Where's the evidence that active learning works? *Advances in Physiology Education*, 30(4), 159–167. https://doi.org/10.1152/advan.00053.2006

Master Your Memory

As you identify the content you are working to learn, you will often discover things that you will need to commit to memory. What strategies will help you to remember important information effectively so that you can recall it on tests, apply it to subsequent courses, and use it throughout your life and career?

Image Credit: Vijaya Jammi

What is memory? Memory is the ability to remember past experiences and is a record of the learning process. The human brain has the ability, known as neuroplasticity, that allows it to form new neural pathways, alter existing connections, and adapt and react in ever-changing ways as we learn. Information must go into our long term memory and then, to retrieve it from our memory, we must have a way of getting it back.

Long-term memory stores all the significant events that mark our lives; it lets us retain the meanings of words and the physical skills that we have learned. There are three steps involved in establishing a long term memory: encoding, storage, and retrieval.

1) To encode, you assign meaning to the information.

2) To store information, you review it and its meanings (study), as repetition is essential to remembering.

3) To retrieve it, you follow the path you created through encoding. This may include a number of memory triggers that you used when you were encoding.

What strategies help store information in long term memory? Mnemonics (the initial "m" is silent) are strategies to associate the information we want to remember with a physical sense to turn it into something that's much more likely to stick in your mind and be able to be brought back to your consciousness when you want it. The key idea is that by coding information using vivid mental images, you can reliably code both information and the structure of information. And because the images are vivid, they are easy to recall when you need them.

- Use positive, pleasant images. Your brain often blocks out unpleasant ones.
- Use vivid, colorful, sense-laden images – these are easier to remember than drab ones.
- Use all your senses to code information or dress up an image by using sounds, smells, tastes, touch, movements and feelings as well as pictures.
- Give your image three dimensions, movement and space to make it more vivid.
- Exaggerate the size of important parts of the image.
- Use humour! Funny or peculiar things are easier to remember than normal ones.
- Similarly, rude rhymes are very difficult to forget!

- Symbols (red traffic lights, pointing fingers, signs, etc.) can code quite complex messages.

Type	Sample Method
Acronyms	Every discipline has its own language and acronyms are the abbreviations. Acronyms can be used to remember words in sequence or a group of words representing things or concepts. CAD can mean: Control Alt Delete, Canadian Dollar, Computer Aided Design, Coronary Artery Disease, Canadian Association of the Deaf, Crank Angle Degree, etc.
Acrostics	Acrostics are phrases where the first letter of each word represents another word. They are relatively easy to make and can be very useful for remembering groups of words. For example: King Philip Can Only Find His Green Slippers. This is the classification system of: Kingdom, Phylum, Class, Order, Family, Genus, Species.
Chunking	You can capitalize on your short term memory by "chunking" information. If you need to remember this number: 178206781. The task would exhaust your seven units of storage space unless you "chunk" the digits into groups. In this case, you could divide it into three chunks, like a social insurance number: 178 206 781. By chunking the information and repeating it you can stretch the capacity of your short term memory.
Images	This helps us remember by linking words to meanings through associations based on how a word sounds and creating imagery for specific words. This sort of visualization was found to be more effective when one listened to a someone reading a text than when they read the text themselves
Locations and Journeys	Traditionally known as the Method of Loci, we associate each word from a list or grouping with a location. Imagine a place with which you are familiar, such as, the rooms in your house. These become the objects of information you need to memorize. Another example is to use the route to your work or school, with landmarks along the way becoming the information you need to memorize. When you do this in order of your journey through the imagined space, it makes it easier to retrieve all of the information in the future.
Maps & Diagrams	Graphic organizers help us remember by connecting new information to our existing knowledge and to let us see how concepts relate to each other and fit in to a context. Mind and concept maps, Cause and Effect, Fishbone, Cycle, Flow Chart, Ladders, Story Board, Compare and Contrast, Venn Diagrams, and more.
Reciting	Saying something out loud activates more areas of our brain and helps to connect information to other activities.
Rhymes	Rhyme, rhythm, repetition, and melody make use of our brain's ability to encode audio information and use patterns to aid memory. They help recall by limiting the possible options to those items that fit the pattern you have created.
Summarizing	This traditional element of note taking is a way to physically encode materials which make it easier for our brain to store and retrieve. I can be said that if we cannot summarize, then we have not learned…yet.

References: [1] [2] [3]

Try It:
Select one course where memorizing key concepts is a part of your exam preparation. Choose at least one new strategy from the chart above this week. Monitor — is this strategy effective for what you are trying to learn? A good way to monitor is to see if you can recall the information accurately without looking at a text or notes.

1. Dubuc, B. (2002). *Memory and learning*. Retrieved from http://thebrain.mcgill.ca/flash/a/a_07/a_07_p/a_07_p_tra/a_07_p_tra.html
2. MindTools Content Team. (n.d.). *Introduction to memory techniques*. Retrieved from https://www.mindtools.com/memory.html
3. Whitehead, J., Fraenkel, C., Yu, E., & Van Der Mark, A. (2017, February 1). *Memory*. Retrieved from http://etec.ctlt.ubc.ca/510wiki/index.php?title=Memory&oldid=63689

Use Effective Questioning Strategies

Self-testing is one of the most powerful study strategies. Creating good questions requires you to think critically about what you need to learn (planning). Testing whether you can answer questions without referring to a text or notes, as you would in an exam, allows you to effectively monitor your progress. The trick to effective self-testing is asking the right questions. In university, you are required to move beyond recalling basic facts and details, and must learn to apply and analyze material deeply.

One way of picturing these levels of depth in learning is Bloom's Taxonomy. The categories in the cognitive taxonomy developed by Bloom include:

1. **Remember** (knowledge recall) – retrieving relevant knowledge from long-term memory
2. **Understand** (comprehension) – interpreting the meaning of information; being able to "translate" knowledge into one's own words; linking new information to what you already know
3. **Apply** – using what you know to do required tasks
4. **Analyze** – taking things apart; dissecting; asking "why?"; seeing relationships and how things work
5. **Evaluate** – appraising, judging and critiquing the outcomes of any of the other levels
6. **Create** (synthesis) – putting things together; building on what you know to create something new; seeing new relationships or making new connections. [1][2]

1. Anderson, L. W., & Krathwohl, D. (Eds.). (2001). *A taxonomy for learning, teaching, and assessing: A revision of Bloom's taxonomy of educational objectives*. New York: Longman.
2. Bloom, B., Englehart, M. Furst, E., Hill, W., & Krathwohl, D. (1956). *Taxonomy of educational objectives: The classification of educational goals. Handbook I: Cognitive domain*. New York, Toronto: Longmans, Green.

BLOOM'S TAXONOMY

CREATING
USE INFO TO CREATE SOMETHING NEW
design, build, plan, construct, produce, devise, invent

EVALUATING
CRITICALLY EXAMINE INFO & MAKE JUDGEMENTS
judge, critique, test defend, criticize

ANALYZING
TAKE INFO APART & EXPLORE RELATIONSHIPS
categorize, examine, organize, compare/contrast

APPLYING
USE INFO IN A NEW (BUT SIMILAR) FORM
use, diagram, make a chart, draw, apply, solve, calculate

UNDERSTANDING
UNDERSTANDING & MAKING SENSE OUT OF INFO
interpret, summarize, explain, infer, paraphrase, discuss

REMEMBERING
FIND OR REMEMBER INFO
list, find, name, identify, locate, describe, memorize, define

Image Credit: Rawia Inaim

One method for creating study questions or planning active learning activities is to move step-by-step through each level of Bloom's Taxonomy. Begin with a few questions at the *Remembering* level. If you don't yet know the technical language of the subject and what it means, it will be difficult for you to apply, evaluate, analyze, or be creative. Then, go deeper into your subject as you move through the levels.

Try It!

Create Study Questions Using Bloom's Cognitive Taxonomy

Pick a subject area in which you are working. For each level of Bloom's Taxonomy on this page:

- Develop a question and answer it to show that you can think about the material at that level.
- Then, working with a partner and using the chart below, explain the questions at each level of Bloom's taxonomy for this subject area to a partner and listen to them do the same.
- Discuss how your questions would allow you to assess how much you know and what level you are working at.

Level	Question
Remembering	Remembering and Recalling information. My question(s):
Understanding	Understanding Explaining ideas or concepts. My question(s):
Applying	Applying information in a familiar situationMy question(s):
Analyzing	Analyzing by breaking information into parts to explore relationships. My question(s):
Evaluating	Justifying a decision or course of action. My question(s):
Creating	Generating new ideas, products, or ways of viewing things. My question(s):

Explore the Four Levels of Questioning

Another model for creating effective self-study questions divides questions into four levels. The levels move from more surface/factual questions, towards deeper, more analytical questions. In order to be sure that your self-study questions probe deeply enough into the course content to prepare for university-level tests and exams, you will want to include questions from each level in your review.
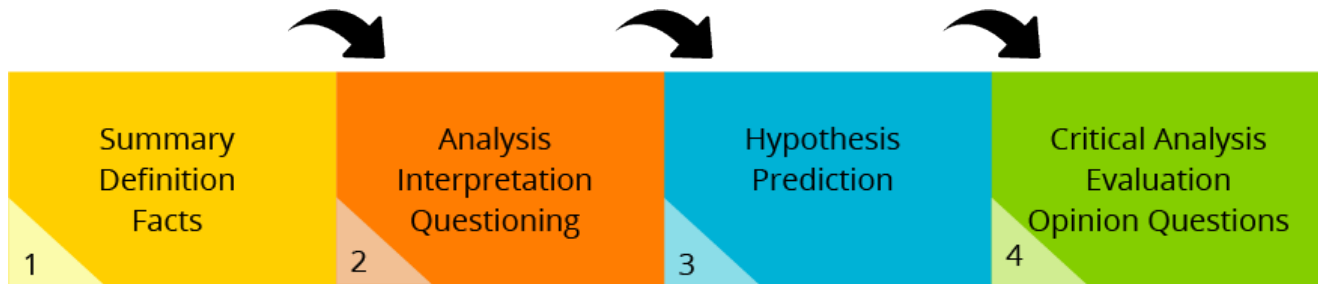
Image Credit: Rawia Inaim

Level 1. Summarizing/Definitions/Fact Questions

These questions give you the vocabulary and scope of the subject matter.

- What is the definition of...?
- Who did...?
- When did...occur?
- How much/many...?
- What is an example of...?

Level 2. Analysis/Interpretation Questions

Here, you are looking for the context and impact, supported by evidence.

- How did...occur?
- Why does...occur?
- What are the reasons for...?
- What are types of...?
- How does...function?
- How does the process occur?
- What are my own examples of...?
- What causes ...to occur?
- What results when...occurs?
- What is the relationship between...and...?
- How is...similar to/different from...?
- How does... affect or apply to...?
- What does...mean?
- What conclusions can be drawn from...information?
- What is (are) the problem(s), conflict(s), issue(s)?
- What are possible solutions/resolutions to these problems, conflicts, issues?
- What is the main argument or thesis of an author?
- How is this argument developed?
- What evidence, proof, support is offered?
- What are other theories, arguments from other authors?

Level 3. Hypothesis/Prediction Questions

These questions help you to develop hypothesis and look at possible outcomes.

- If...occurs, then what would happen?
- If...changed, then what would change?
- What does theory x predict will happen?
- What hypothesis or theory explains this data or given information?

Level 4. Critical Analysis/Evaluation/ Opinion Questions

Use these questions to analyze differentiate, and make choices about the subject in context and with supporting evidence.
Is...

- Good/bad? Why?
- Correct or incorrect? Why?
- Effective or ineffective? Why?
- Relevant or irrelevant? Why?
- Logical or illogical? Why?
- Applicable or not applicable? Why?
- Proven or not proven? Why?
- Ethical or unethical? Why?
- What are the advantages or disadvantages of...? Why?
- What is the best solution to the problem, conflict, issue?
- Why is it the best?
- What should or should not happen? Why?
- Do I agree or disagree? Why?
- What is my opinion? What is my support for my opinion?

How Can You Use These Questions?

Take any concept or statement, put one of these question "keys" in front of it, put a question mark at the end, and you have your question!

Now go look for an answer.

Remember that these questions at these levels may already be at the end of your chapters or in your study guide or learning objectives. So survey the chapter, find and use them if they are relevant to your learning. [12]

Try It!

Choose one unit or chapter that you are currently studying in one of your courses. Create as many questions as possible, trying to include questions from each of the levels. Use the levels to ensure that your questions are varied and deep.

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1. Adapted from: Salustri, F. (2015). *Four levels of questions*. Retrieved April 23, 2018, from http://deseng.ryerson.ca/dokuwiki/design:four_levels_of_questions. Used with permission.
2. McMaster University. (2005). *What questions engage students?* Retrieved April 23, 2018, from http://cll.mcmaster.ca/resources/pdf/what_questions_engage_students.pdf

Get Those Projects Done

Get Those Projects Done

Plan-Monitor-Evaluate Connection
Completing major assignments requires strong **planning**. In this chapter, you will plan to manage time well to successfully complete projects. You will also use rubrics to plan what you need to do to be successful. You will also use monitoring strategies as you progress through your plan. You will monitor if you are meeting your daily work goals. You will also use your rubric and self-editing strategies to monitor whether you are successfully completing assignment requirements before submitting your work to your Instructor.

Learning Objectives
Major assignment may seem overwhelming at first. By developing an achievable step-by-step plan, you'll be on the road to completing your essays and reports. By reading this chapter, you will be able to:

- Analyze your assignment to determine what is required.
- Use a rubric to plan your assignment and monitor your progress.
- Develop an assignment plan.
- Move past writer's block and generate ideas for your assignment.
- Create an outline for a written assignment.
- Use a systematic strategy to self-edit your work.

Analyze Your Assignment

You need a clear understanding of what the instructor wants before starting on any assignment of project. Then you will want to translate assignment terms and requirements into useful clues as to what your instructor expects. When you are not sure, remember to ask the instructor.

The first step is to read the assignment carefully as soon as you receive it.

Assignment #1 - Critique Essay   20%

Write a critique of John Smith's article "Teenagers on the Web: The Dangers of Social Media."

- Length: a minimum of 3 pages
- Include a title page and Works Cited page.
- Use at least one of ethos, pathos, or logos in your critique.

Read this example carefully. Your assignment instructions give you the minimum requirements that your instuctor is expecting in this assignment.

Image Credit: Rawia Inaim

Interpreting the Assignment

Ask yourself a few basic questions as you read and jot down the answers on the assignment sheet:

- Why did your instructor ask you to do this particular task?
- Who is your audience?
- What kind of evidence do you need to support your ideas?

- What kind of writing style is acceptable?
- What guidelines must you follow?

Terms that might be used

- *Identification Terms*: cite, define, enumerate, give, identify, indicate, list, mention, name, state.
- *Description Terms*: describe, discuss, review, summarize, diagram, illustrate, sketch, develop, outline, trace.
- *Relation Terms*: analyze, compare, contrast, differentiate, distinguish, relate.
- *Demonstration Terms*: demonstrate, explain why, justify, prove, show, support.
- *Evaluation Terms*: assess, comment, criticize, evaluate, interpret, propose.

Begin with Background Content

Most assignment will be related to the materials you have studied in the course up to the point of the assignment. As you read the assignment or project requirements, start by identifying which theories, formulas, and graphics relate. Consider what research you will need to do to complete the project.

Use the Rubric!

Your assignment instructions and rubric are two of your key tools throughout the process of completing the assignment. These provide an outline of the criteria that the instructor has set out for a successful assignment. There are two key times to use the rubric and assignment instructions:

1. Before you start writing: Unfortunately, time may be lost writing something that does not meet the key guidelines you must follow. To avoid this problem, take time to read both the assignment instructions and rubric *carefully* before beginning. Clarify any areas of confusion with your instructor.

2. After you have written a draft, but before you submit the assignment: At this point, grade your work according to the rubric. Think carefully and critically. Are there areas where you may not have met the criteria well? If so, edit your work accordingly, making the needed revisions before submitting the assignment.

Try it!

Take out your assignment instructions and rubric. Use them to answer the following questions:

1. Describe in one sentence your task on this assignment: *What do you need to do?*
2. What *resources* will you use to complete this assignment? Review any textbook materials, handouts, or class notes that relate to this assignment. How many additional resources do you need to find to complete the assignment task? (consider books, peer reviewed articles, websites, or other resources).
3. What *content* do you need to create for this assignment?
4. What *guidelines* do you need to follow related to the format of the assignment? What format do you need to use for citations and references (APA, MLA, and Chicago are the most commonly used).

Develop an Assignment Plan

Now that you have a clear idea of what you need to do, the next step is to break down the assignment into manageable "chunks". The idea of completing a major research paper may seem overwhelming, but if you can divide the task into achievable steps you will be on your way to success.

Use the chart below to break your assignment into smaller steps. You will want to create steps that can be done easily in one day, and preferably in a single work period. Consider the following example breakdown for a research paper.

Assignment Task	Target Completion Date	Complete?
Read assignment instructions and rubric	October 2	Y
Review course materials and choose topic	October 3	Y
Library research — find 3 peer reviewed articles and two books	October 5	
Read and take notes on two articles	October 7	
Read and takes notes on final article and books	October 8	
Organize notes; write thesis and outline	October 9	
Write body paragraph 1	October 10	
Write body paragraph 2	October 10	
Write body paragraph 3	October 11	
Write body paragraph 4	October 11	
Write conclusion	October 12	
Write introduction	October 12	
Self-edit content and organization (use the rubric)	October 14	
Writing tutor appointment	October 15	
Edit and proofread assignment	October 16	
Submit final assignment	October 18	

In the above example, the assignment is divided into smaller pieces, with a manageable amount to complete each day. It is also clear when each task has been completed. A daily work goal like "work on research paper" is not well-defined, and can seem overwhelming. This can make it easy to procrastinate. By choosing specific and achievable goals, you may become more motivated to get started, and you will be able to measure your progress each day. Remember to reward yourself for meeting your goals along the way.

Try it!
Choose one of your upcoming assignments, and create a work plan modelled on the example above.
Download the assignment planner worksheet.

Move Beyond Writer's Block

Now that you understand your assignment and you have made your plan, you will want to develop your ideas and start writing. Does the blank page (or computer screen) have you stuck? To get your ideas flowing, you may want to try some of the following strategies:

1. Try some free writing. Write a journal, poem, blog, or story that includes your main ideas.

2. Say your ideas out loud. Talk to a friend, family member, or classmate about what you are reading and learning about your topic. You could also record these ideas into a device as if you were talking to someone else, and then play the recording back.

3. Write your ideas on post-it-notes or index cards, one idea per sheet. nclude the name and page of the source where you found each idea — you will need this to create your citations as you write. Then, group your notes according to themes. This will help you to create the initial organization of your paragraphs and paper.

4. Create a mind map or a concept map.

Mind mapping which is also called "clustering ideas", is a way of collecting ideas around a particular topic and defining connections. In the writing process, you use mind mapping to brainstorm ideas, and to determine how these ideas are related.[1]

The rules are: no criticism of ideas, go for large quantities of ideas, build on ideas, and encourage wild and exaggerated ideas. When these rules are followed, a lot more ideas are created. Particularly at the beginning of the writing process, you may explore a topic and generate content by creating a mind map.

Examples of Clustering and Mind Mapping

Clustering is a good way to start the process of inventing new writing but may need elaboration to be useful to the process of academic writing.

Start with what you know. This may be as little as one word. The next step is to define your word. Each part of the definition can become a new circle in your mind map.

You will ask, "Who, What Where, When, why, and How" questions to help identify what you know and / or remember about your topic.

As you make new connections, you will also see where there are gaps and what you don't know about the topic. This can lead you to identifying what you need to research about the subject. Once you have a reasonable amount of information, you can start to develop the relationships between and among the ideas. This technique is called "Concept Mapping" and allows you to continue to elaborate on the basic ideas that you have generated. Below, you will find an example of a concept map, created by a writer exploring global warming.

1. Buzan, T. (n.d.). *What is a mind map?* Retrieved from http://www.tonybuzan.com/about/mind-mapping/
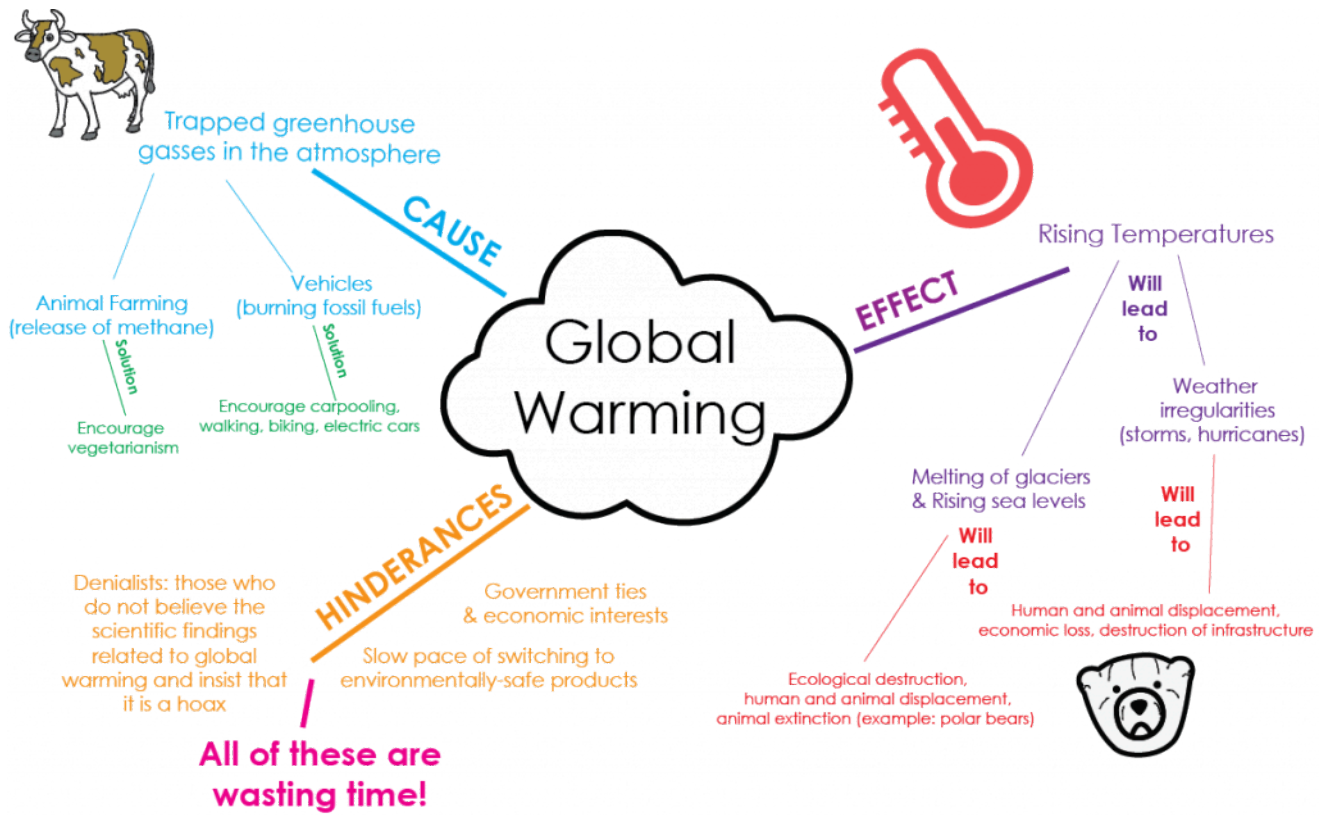
Example Mind Map (Image Credit: Rawia Inaim)

Try it!

Choose one of the four strategies listed below:

1. Talk about your ideas
2. Spend time freewriting
3. Cluster post-it notes or index cards
4. Create a concept map

Now that you have begun generating your ideas, you will be ready to move on to formal outlining as your next step.

Create an Outline

Before you begin writing, you will want to create an outline. An outline helps you to organize your ideas into a clearly presented argument or report.

Step 1: Create a Thesis Statement

If you are writing an essay or research paper, you will begin by writing a draft thesis statement. A thesis statement is a concise presentation of the main argument you will develop in your paper. Write the thesis statement at the top of your paper. You can revise this later if needed.

The rest of your outline will include the main point and sub-points you will develop in each paragraph.

Step 2: Identify the Main Ideas that Relate to your Thesis Statement

Based on the reading and research you have already done, list the main points that you plan to discuss in your essay. Consider carefully the most logical order, and how each point supports your thesis. These main ideas will become the topic sentences for each body paragraph.

Step 3: Identify the Supporting Points and Evidence for Each Major Idea

Each main point will be supported by supporting points and evidence that you have compiled from other sources. Each piece of information from another source must be cited, whether you have quoted directly, paraphrased, or summarized the information.

Step 4: Create Your Outline

Outlines are usually created using a structure that clearly indicates main ideas and supporting points. In the example below, main ideas are numbered, while the supporting ideas are indented one level and labelled with letters. Each level of supporting detail is indented further.

Anatomy of an Outline

1. Create a Thesis Statement.

Sample Paper Outline:

Thesis statement: *Because globalization is an undeniable reality in today's world, a well-rounded Canadian education must include opportunities for students to study one or more languages.*

1. Bilingualism is the norm for most of the world's people. Those who are not bilingual are easily left behind.
   1. Statistics on bilingualism in the world.
   2. Contrast between levels of bilingualism in Europe, Asia, and North America.
   3. Disadvantages created by low levels of bilingualism in Canada.
2. Strong language education is a global norm, and Canada's weakness in this area should be remedied.
   1. Information on language education in schools in select European, Asian, and North American countries.
      1. Percentage of students in Europe, China, and India that become bilingual through their education.
      2. Low levels of second language study in Canadian schools.
   2. Ways in which norms and expectations in language teaching contribute to successful bilingualism.
      1. Strong teaching methods lead to success in global contexts.
      2. Because Canadian teachers and students do not expect to become bilingual, low expectations lead to the continued use of outdated teaching methods.
3. Bilingualism is necessary for participation in a global economy.
   1. Percentage of economic trade that is dependent on trade between one or more countries.
   2. Role of bilingualism in multinational companies.
      1. Job opportunities provided by bilingualism.
      2. Why relying on English as a trade language is not sufficient for success in international business.
   3. The lack of second language education in Canadian secondary and post-secondary schools places Canadian students at a disadvantage in a global economy.
4. Bilingualism creates social good, and therefore the education system should actively work to promote it.
   1. Bilingualism allows people to understand cultures besides their own.
      1. Problems related to a lack of understanding between people.
      2. Research on how bilingualism allows people to understand one another.
      3. Role of language study in creating empathy.
   2. Education systems must work towards the common good of a peaceful society.
      1. Schools should promote cultural understanding through language study.
      2. Schools that do not promote bilingualism fail to provide their students with important cross-cultural communication skills.

2. Identify main points that relate to your thesis statement.

3. Identify the supporting points and evidence for each major idea.

For more information, go to kpu.ca/learningaids

Image Credit: Graeme Robinson-Clogg

Try it!

Create an outline for a paper or report for one of your courses.

1. Write a thesis statement that clearly presents the argument that you will make.
2. Use a multi-level outline, similar to the one in the example above, to create an outline before you begin writing.

Extend Your Learning

Outlining can help you to clarify your ideas, demonstrate if you have adequate support for your paper and provide a way to complete it in manageable stages.

Write the First Draft

The thesis statement and outline that you prepared in the previous step will guide you through the rest of the writing process. Here are a few tips for the drafting phase of the writing process:

1. Write the body paragraphs first. Although the introduction is the first thing your reader will see, it is much easier to write an introduction once you know how your paper develops.

2. Write the introduction. Get your audience's attention. What is important or intriguing about this topic? What background do your readers need to understand? Your introduction also includes your thesis and an overview of the main points you will discuss in your paper.

3. Write the conclusion. The conclusion restates your thesis, summarizes the most important points, and demonstrates that you proved your thesis. Do not add new arguments at this point. End with the significance of the argument you have made.

KPU   TLC

Writing an Essay Draft

Globalization and Academic Credentials in Canada

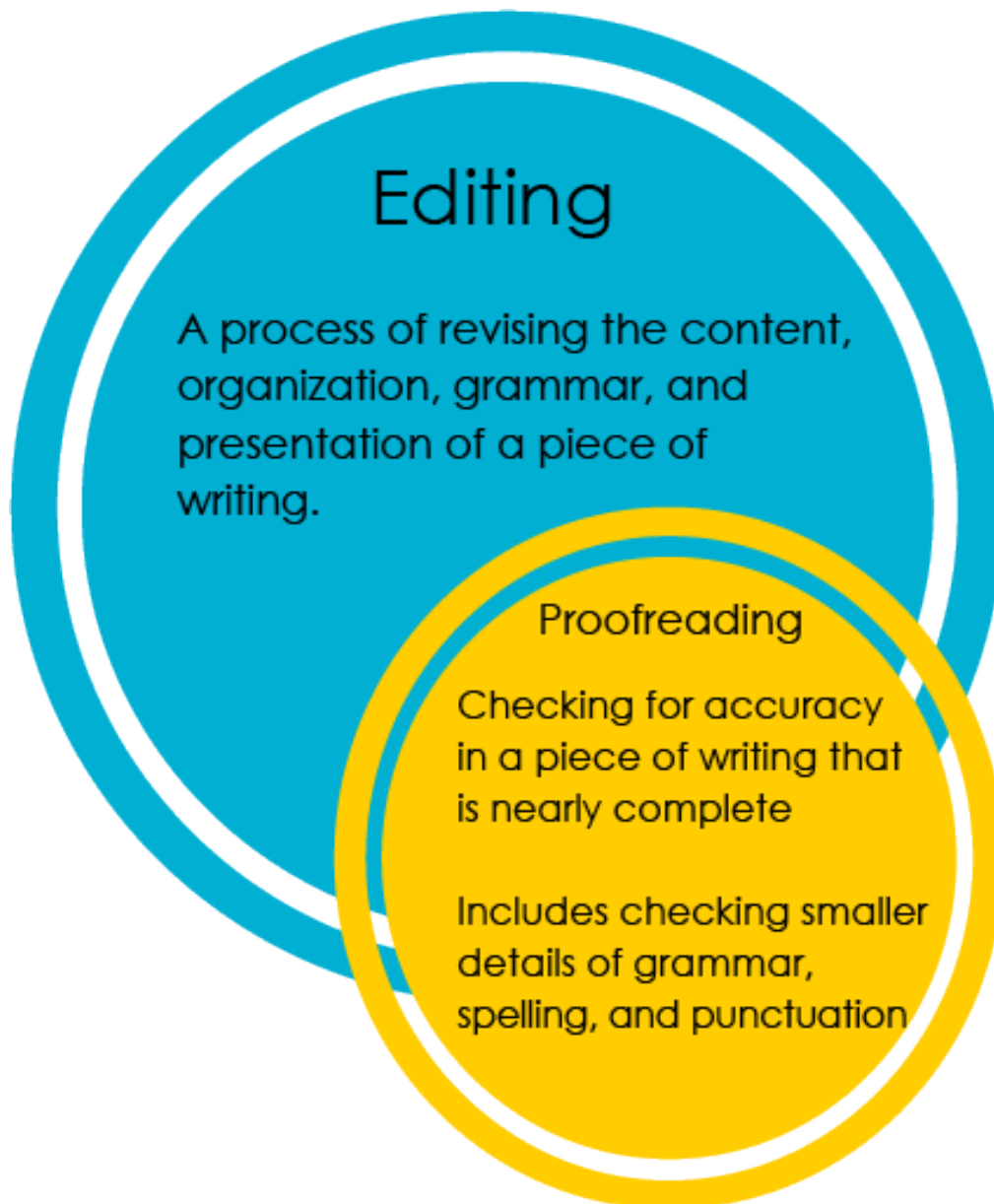Vestibulum ante ipsum primis in faucibus orci luctus et ultrices posuere cubilia Curae; Nunc dapibus a magna eget suscipit. Lorem ipsum dolor sit amet, consectetur adipiscing elit. Phasellus et risus eu massa rutrum ultricies. Mauris hendrerit felis sed quam suscipit laoreet. Nam pulvinar est ac augue hendrerit, ut lobortis tellus bibendum. Nunc tristique eros nec orci fringilla, a pharetra ligula rhoncus. Integer turpis nunc, mollis eget lorem sit amet, tempor tincidunt dolor. Proin laoreet sagittis urna, et malesuada diam tristique nec.

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1. Start by writing the body paragraphs

2. Write your introductory paragraph

3. Write a conclusion paragraph.

For more information, go to kpu.ca/learningaids

Image Credit: Graeme Robinson-Clogg

Self-Edit Your Work

After you have finished creating a first draft of your paper, you will want to begin the process of editing and revising. Editing is an important part of the writing process that allows you to present your ideas in the clearest and most effective way possible. It involves making improvements to all of a paper – the thesis, how the arguments are organized, paragraph structure, and sentence structure. Proofreading, which involves looking at smaller details like spelling, grammar, punctuation, and word choice is one step of the editing process, which typically comes after you have edited the content and structure at your paper. A good editing process moves from the "big picture", step by step towards the smaller details.

Editing

A process of revising the content, organization, grammar, and presentation of a piece of writing.

Proofreading

Checking for accuracy in a piece of writing that is nearly complete

Includes checking smaller details of grammar, spelling, and punctuation

Proofreading is a part of editing, but editing is **much more** than proofreading.

Image Credit: Rawia Inaim

Self-Editing in Five Steps

Many writers find that it's difficult to figure out what to revise in their own writing. Following these five steps can help take the mystery out of self-editing.

1) Check the assignment instructions.

- Compare the instructions to your draft. Use the instructions like a checklist.

- Make a note of any elements missing from your paper, and focus your revisions on those areas.

- If you have a grading rubric, "grade" your draft according to the rubric. Note any adjustment that you want to make before submitting the paper.

2) Check the thesis.

- Is it the right type of thesis for the kind of paper you are writing?
- Can it be more specific?
- Does it match the conclusions you draw in the body of the paper?
- Does it explain the significance of your argument?

3) Check the body paragraphs.

- Is the topic sentence easy to identify?
- Is there evidence to support your claims?
- Is it clear how the evidence supports the claims?
- Have you explained/discussed the evidence thoroughly?
- Does the conclusion tie the paragraph's ideas back to the topic sentence and the thesis?
- Is there a smooth transition to the next paragraph?

4) Check the introduction and conclusion.

- Does the introduction introduce the topic and engage the reader?
- Does the conclusion do more than repeat what you already said?
- Does the conclusion elaborate on the significance of the thesis?

5) Proofread the paper. Do this several times.

- Make major revisions first. Do your ideas come across clearly?
- Then check for grammar mistakes, awkward sentences, repetition, citations, style, and formatting.

Remember that self-editing is a key part of the writing process. It's also a skill that takes time to develop. The best thing about practicing self-editing is that the process of finding and revising weak areas of our writing gives us a better understanding of our strengths and weaknesses. It also reminds us what a well-developed paper looks like. All of this helps us write stronger papers in the future.

Try It!

Take out the first draft of any piece of writing you are currently completing. Follow the five steps listed above. How does following this process help you to edit your work in a systematic way?

Get Ready for Exams

Get Ready for Exams

Plan-Monitor-Evaluate Connection
In this chapter, you will begin by creating a master **plan** for your exam session. You will return to your Learning Objectives, and determine *what* you need to know to succeed on your test and exam. You will also plan *how* you will conduct your review using active learning strategies. As you study, you will want to **monitor** your ongoing progress with the course content Finally, exam time is often a good time for **evaluation.** You will receive substantial feedback through the process of doing an exam. What is going well for you? What changes would you like to make going forward to continue to improve your study strategies.

Learning Objectives
Exams are coming! How will you prepare? In this chapter, you will plan to manage your review time effectively. You will also explore some exam day strategies to demonstrate your knowledge by answering questions well. By the end of this chapter, you will be able to: · Strategically organize review sessions. · Apply effective strategies for answering multiple choice, short answer, and essay questions. · Manage exam-day stress.

Organize Review Sessions Strategically

The first step in planning is to set clear goals. Create a goal that is both *specific* and *achievable* for you.
   What grade do you hope to achieve in this exam? _____

How motivated are you to achieve this grade?

How important is it to you to achieve this grade?

How confident are you about achieving this grade?

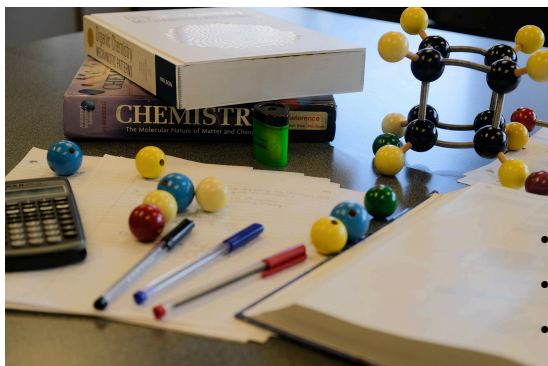Photo Credit: Emily Tan

The next step is to determine what you will need to learn for this exam, and how you will be expected to show your knowledge. Refer to the Learning Objectives for your course, and for individual units of study with the course. You may find these:

- In your course presentation
- At the beginning of textbook chapters
- In course notes provided by your instructor.

Determine key concepts to study: Analyze key concepts as you think your Instructor might

   Imagine you are the instructor and think about the hardest questions you think might come up on your exam. Practice answering these questions using your notes and text and writing out the answers fully. As you answer the questions, try to integrate information from various sources and express ideas in your own words. This will help prepare you for your exams in thorough and deep ways.

   Now, identify strategies to learn the material, as well as additional resources that can help you succeed. Consider the following:

Strategies	Resources
• Develop and answer self-testing questions • Use flash cards for key concepts • Use an app to create quizzes/ flashcards • Create mind maps or concept maps • Create charts that compare/ contrast key course concepts • Develop mnemonics to help you memorize important information • Write outlines for potential essay questions • Complete practice questions from your textbook/ course materials • Develop practice exams with a study partner • Create summaries of course notes • Develop a daily study plan that includes goals and rewards • Develop case studies and connect them with course concepts • Review previous quizzes, noting your strengths and areas for improvement	• Form a study group • Attend group study sessions (if available for your course), or form your own study group • Meet with a Peer Tutor • Visit Instructor Office Hours • Consult with a Learning Strategist • Use supplemental online resources connected with your textbook (e.g. videos, online quizzes and problems) • Read *Learning Aids* to discover new strategies

Now, think of one exam that you will be writing in the near future. Identify what you need to learn. Then, identify one or more learning strategies that you will use to study this content. Use this information to create a study plan. The chart below provides an example of what might be included in a study plan. What might your study plan include?

Study Session Date	What I need to learn	Strategies/resources for learning
February 1	Psychology Chapter 3: LOs • Compare/contrast types of memory (semantic, episodic procedural) • Describe the stages in recording new information in long-term memory • Explain the role of the hippocampus, amygdala, and cerebellum in memory processes	• Venn diagram (compare/contrast types of memory) • Review vocabulary in flash card app • Self-testing questions on memory • Draw and label diagram of brain re: memory
February 2	• Explain the role of Pavlov, Skinner and Watson in the development of behaviourism • Compare and contrast classical and operant conditioning • Create a model to demonstrate how learning occurs through a process of conditioning	• Create a mind map of behaviourism/ behavioural psychologists • Review vocabulary in flash card app • Develop scenarios that explain the process of classical/operant conditioning • Write questions for study group session

As you execute your study plan, you will want to carefully track which Learning Objectives you have now mastered, and which are still difficult for you. As the exam date comes closer, you will want to devote additional time to areas that are still challenging.

Try it!
Which tests or exams are you preparing for now? Create a study plan using the chart below, or download the printable study plan worksheet.

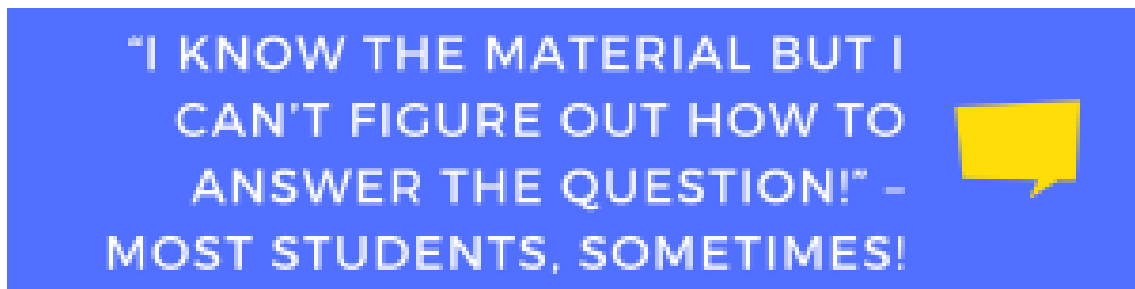| Plan: Study session date	Plan: What do I need to learn?	Plan: How will I learn this material?	Monitor: What do I know well? What needs additional practice?

Answer Your Exam Questions

Image Credit: Christina Page

Answering Multiple Choice Questions

Read the directions carefully before you begin answering the exam. Scan all questions over quickly to get a sense of the scope of the exam. Allot your time according to the number of questions.

(1) Read each question carefully.

Multiple choice exams also examine your ability to read carefully and thoughtfully, as much as they test your ability to recall and reason. You must answer the question that is being asked.

(2) Start with questions you feel most comfortable answering.

- Cover up the possible responses with a piece of paper or with your hand while you read the stem, or body of the question. Decide what you think the answer is.

- Then uncover the answers and pick the one that matches your answer. Check to be sure that none of the other responses is better.

- Read the stem with each option treating them as a true-false question, and choose the most true.

- If you are unable to make a choice and need to spend more time with the question, or you answered the question but are unsure that you made the correct choice, put a question mark beside that question, and move on to the next.

- Move on and finish all of those questions that you can answer and then to come back later to process the problematic questions.

- Sometimes the answer will occur to you simply because you are more relaxed after having answered other questions.

If you can't decide on a correct answer:

- Absolute words, such as "always" or "never" are less likely to be correct than conditional words like "usually" or "probably." "Funny" or "strange" options are often wrong.

- If you can verify that more than one of the responses are probably correct, then "all of the above" may be

a correct response.

- "None of the above" is usually an incorrect response, but this is less reliable than the "all of the above" rule.
- Be very careful of double negatives (e.g. "There are not insignificant numbers of salmon in British Columbia waters = There are significant numbers of salmon in British Columbia waters). Create the equivalent positive statement.
- Eliminate options you know to be incorrect.
- If all else fails...Guess (unless there is a penalty for wrong answers).

Finally: Take the time to check your work before you hand it in. [12]

Short Answer Questions
Your instructor is looking for a brief and descriptive answer.

- Allocate your time according to the proportion of marks each question is worth.
- If a question that asks you to "explain", imagine you are telling a friend about the topic.
- If you have questions which are a mix of short and essay answers, check the rubric carefully so you don't miss answering part of the question.

Essay Questions
Essay questions ask you to discuss and expand on a topic and are usually several paragraphs long.

- Think about what the question is actually asking. What are you expected to include in your answer? What material will be relevant? A common complaint from instructors is that the student didn't answer the question.
- If a question asks you to "briefly comment", treat it as a mini-essay – have a sentence or two to introduce your topic; select a few points to discuss with a sentence or two about each; add a concluding sentence that sums up your overall view.

Make a Plan! Take a few minutes to think and plan:

- Underline the key words in the question.
- Identify the main topic and discussion areas.
- Choose a few points/arguments about which you can write.
- Make a mini-plan which puts them in order before you start writing. You can cross it through afterwards.
- Demonstrate that you are answering the question – In your introduction show how you understand the question and outline how you will answer it. Make one point or argument per paragraph and summarize to show how it answers the question. Short paragraphs with one or two pieces of evidence are sufficient. In your conclusion summarize the arguments to answer the question.

What to do if your mind goes blank?

- Put your pen down, take a deep breath, sit back and relax for a moment. If you're in the middle of an answer, read through what you have written so far – what happens next? If you have to remember formulae, try associating them with pictures or music while revising. If you really can't progress with this answer, leave a gap. It will probably come back to you once you are less anxious.

1. Adapted from: Study Guides and Strategies. (n.d.). *Multiple choice tests*. Retrieved from http://www.studygs.net/tsttak3.htm
2. University of Toronto. (2000). *Tips for success: Mastering multiple-choice tests*. Retrieved from http://bio150.chass.utoronto.ca/tips/testtips.htm

Try it!

An excellent way to prepare for exams is to spend time doing practice tests.

1. If your instructor has prepared a practice test/exam for your course, take the time to complete it. This will allow you to practice the types of questions that will be asked on your exam. Take the test as if it were the real exam. Close your books, and allow yourself the same amount of time as you will have for the exam. After you finish, check your work. *Monitor* what you successfully completed, and what you will need to spend additional time studying.

2. Creating questions for a practice test is another excellent learning activity. Look at the learning objectives, and create the kind of questions you think your instructor might ask. Take your practice test, and monitor your progress. Better yet, share questions with members of your study group and test each other.

Manage Exam Stress

Image Credit: Rawia Inaim

Image Credit: Rawia Inaim

Writing tests and exams can be a stressful experience. How can you manage any anxiety that you are feeling? The first step to managing exam stress is to create and follow a good study plan throughout your semester, and in the weeks leading up to the exam. Cramming at the last minute, or feeling unsure of your knowledge of course material can increase your stress level. Using a variety of active learning strategies that promote deep knowledge of the course material can also improve your stress level. Relying on rote memory for large amounts of material is more stressful than preparing for an exam where you understand the underlying principles and relationships between ideas thoroughly.

What can you do on exam day to manage any jitters?

1. Make sure you are well rested and that you have eaten some protein (settles your stomach).

2. Arrive early and take a moment to relax and reduce your anxiety. Avoid distractions including sitting near or anything or anyone who is distracting to you.

3. Listen carefully to instructions given by the instructor; then read the directions very carefully. For example, you may discover that you only need to answer three out of the five essay questions. Ask for clarification if you do not understand the directions.

4. As soon as the test begins, write down any relevant formulae, concepts, figures, or memory cues that will help you during the test. Add to this list as inspirations come. Refer to it as needed.

5. Scan the entire test to let yourself know what to expect before you start answering.

6. Plan how you will use the time for the test. Observe the point value of each section and figure out a rough time allowance accordingly. Bring a time piece and pay attention to the passing time.

7. Do the easiest questions first. This will increase your confidence and may trigger memory for other answers. Don't waste time lingering over questions you don't know right away.

8. Go back to look at the harder questions. Choose the highest value questions next. If a question is worth 3 marks, there are usually three points that the instructor is looking for. 10 marks = 10 points.

9. Focus on the questions and not the answers. Underline the key words in each question. Think about where you have seen or heard these key words before. Think about other questions that you have already answered for clues. Write your best answer. If it is multiple choice, then check the answers to see if there is an answer that is close to your answer.

10. If two questions or potential answers seem similar, look for what words are different. Think carefully about what difference each word makes. This can lead you to decide on the correct response.

11. Take your time. Don't race through the exam and don't leave early.

12. Use any extra time at the end to check for careless errors, re-visit any difficult questions you left unanswered, or proofread essay answers for grammar and spelling. Make sure you answered all the questions!

13. When you have answered all of the questions, take a minute to re-scan your paper. Do not change any answers unless you are absolutely sure that you have made a mistake. Your first response is more likely to be correct. Second-guessing can lead to lower scores.

Good luck on your exams! Now that you have carefully planned your learning, and monitored the effects of your study strategies on your learning, you will now have the opportunity to evaluate your success in mastering the key concepts in your courses.

Try it!

Make a plan for exam day:

1. What will you do in the days before the exam to manage stress?
2. What strategies from this chapter do you want to try on exam day?

Evaluate and Move Ahead

Evaluate and Move Ahead

Plan-monitor-evaluate connection
This chapter focuses on the **evaluation** phase of the learning cycle. By this point in the semester, you will have received feedback from instructors on assignments and from tests and exams. Use this feedback to help you grow as a student.
As you've seen throughout this book, learning is a cycle. You will use your learning from the evaluation phase to help you plan the next steps of your learning journey.

Learning Objectives
You successfully made it through your first exams and projects. This is the point of the semester where you will want to evaluate your progress and plan the steps ahead. By the end of this chapter you will be able to:

- Use feedback to evaluate your learning.
- Adopt a growth mindset as you plan the next phase of your learning.

Evaluate Your Learning

"We all need people who will give us feedback. That's how we improve." **– Bill Gates**

During the learning process, we have many opportunities to receive feedback about the quality of our learning and work. In the university environment, this often comes in the form of grades and instructor comments on assignments and exams. By using this feedback to evaluate your learning strategies in light of your goals, you will be able to make adjustments to move you towards your goals in current and future courses.

Reflecting Mid-semester
An excellent time for self-evaluation is after you have received feedback on your first midterm exam or major assignment. Consider the following reflection questions at this stage in your course:

- What grade do I hope to achieve in this course? _____
- To what extent am I meeting my goal for the course at this point?
- What about my exam/assignment preparation worked well?
- What about my exam/assignment preparation did not work well? What do I want to change?
- How will what I have learned help me in the second half of the course?

Reflecting at the End of a Course
The completion of a course is also an excellent time for reflection and evaluation. In addition to the questions in the midterm evaluation, consider the following:

1. How will what I have learned help me in my next courses?
2. How will I use what I have learned in my future career and other aspects of my life?

By reflecting on feedback and evaluating your learning regularly, you will avoid getting stuck in unproductive patterns. You will contribute to your own ongoing personal growth and development, supporting your success in future courses and other life endeavours.[12]

1. Chen, P., Chavez, O., Ong, D. C., & Gunderson, B. (2017). Strategic resource use for learning: A self-administered intervention that guides self-reflection on effective resource use enhances academic performance. *Psychological Science*, 28(6), 774–785. https://doi.org/10.1177/0956797617696456;
2. Tanner, K. D. (2012). Promoting student metacognition. *Cell Biology Education*, 11(2), 113–120. https://doi.org/10.1187/cbe.12-03-0033

Try it!

[Download the evaluation template](#) to support you in the process of reflecting and moving ahead.

Develop a Growth Mindset

In any academic endeavour, you will encounter times when you are faced with obstacles or difficulties. Perhaps you are taking a course that you are finding particularly difficult. Perhaps you received some difficult feedback in a grade that was lower than you expected. How can you move ahead in a way that prepares you for success?

Everyone encounters setbacks at times. When this happens, you have a choice of possible responses. Some people respond to setbacks by concluding that they may lack the ability to complete the course successfully. Others respond by concluding that the course or instructor is unfair, and blame their setback on an external force beyond their control. These responses are associated with what is called a *fixed mindset*.

Others respond to setbacks and negative feedback by asking what they can learn from the experience. Their focus is less on achieving a specific grade or result, and more on learning as much as possible from their experiences in university. Individuals with this mindset, which is called a *growth mindset* are more able to recover from setbacks and to go on to achieve greater success.

How do these two mindsets compare?

Growth mindset	Fixed mindset
• Intelligence is not fixed, but it can be developed over time • Difficult tasks are worth pursuing • Feedback, even if it offers correction, is beneficial to support future growth	• Intelligence is fixed, and cannot be changed • If a task is difficult, it should be discontinued • Negative feedback should be avoided or minimized

A growth mindset is associated with successful learning. Why? The growth mindset principles are supported by what we know about the brain and learning. Adult brains continue to develop over time by through learning. Working to master complex material results in the development of additional neural connections. In other words, by learning difficult material, you can actually become smarter. If you believe that you are able to succeed by working hard, you are more able to persevere through the difficult moments in learning, and continue to make progress towards your learning goals. [1] [2]

1. Paunesku, D., Walton, G. M., Romero, C., Smith, E. N., Yeager, D. S., & Dweck, C. S. (2015). Mind-set interventions are a scalable treatment for academic underachievement. *Psychological Science*, 26(6), 784–793. https://doi.org/10.1177/0956797615571017
2. Yeager, D. S., & Dweck, C. S. (2012). Mindsets that promote resilience: When students believe that personal characteristics can be developed. *Educational Psychologist*, 47(4), 302–314. https://doi.org/10.1080/00461520.2012.722805

Try it!

[Download the Growth Mindset Evaluation worksheet.](#)
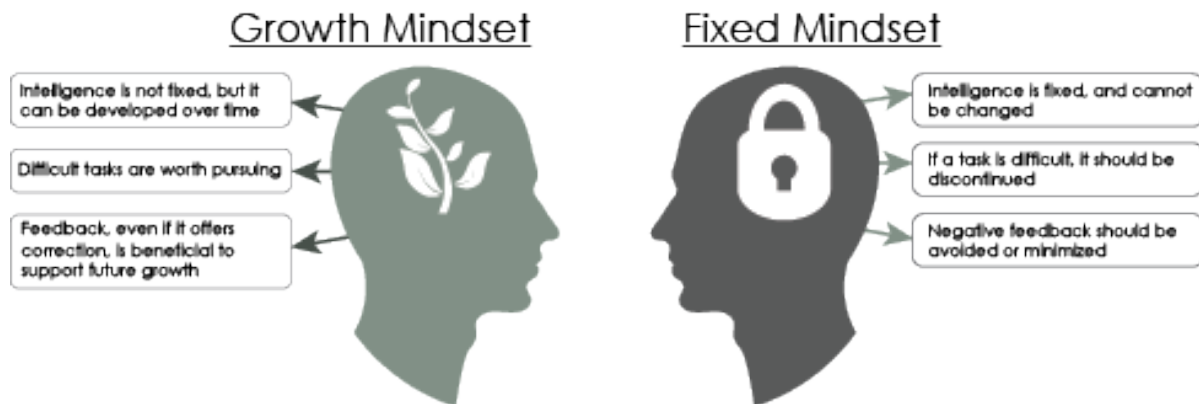
Put the Growth Mindset into Practice

Image Credit: Graeme Robinson-Clogg

If you have discovered that you have a fixed mindset, consider how changing your thinking towards a growth mindset can influence your opportunities for successful learning and growth.

(1) **Adjust your self-talk.** A key sentence to remember is "*I can't do it — yet*". Consider feedback as information to help you as you continue to grow towards a goal, not as a final evaluation of your ability to learn and achieve.

(2) **Respond to feedback differently.** Rather than viewing feedback as criticism of who you are, consider feedback as an opportunity to grow.

(3) **Rather than quitting when you face setbacks, use them as an opportunity to adjust your approach.** You may be learning that your current approach to learning is not leading to the success you desire. Seek out support from others, and try new ways of learning. Setbacks are an opportunity to learn about yourself and to discover what ways of working will be most effective for you.

(4) **Embrace challenging opportunities.** Though it may at first seem easier to avoid situations that might be difficult or perhaps risk failure, embracing challenges leads to success in the long term. Consider how accepting challenges will help you become the person you want to be in the future. [1]

Try it!
Apply the thinking strategies above to a situation you are currently facing. 1. What was a challenging situation I faced this semester? 2. How can I think about it differently using a growth mindset?

1. Adapted from: UNSW Sydney. (n.d.). *Growth mindset*. Retrieved from https://student.unsw.edu.au/growth-mindset

3. What are the benefits to me of adopting this new way of thinking?

Extend Your Learning

Developing a growth mindset can make a powerful difference in your lifelong learning. Explore the following resources to deepen your understanding of this concept.

1. Are you interested in understanding more about your mindset? [Try this online assessment to identify whether you currently have a growth mindset.](#)

2. Explore [*The Mindset Continuum* infographic](#). As its author, James Anderson, emphasizes, fixed and growth mindsets are the end points on a spectrum of perspectives. Use this infographic to explore where you currently are on the mindset continuum, and identify areas for future growth.

Worksheet Downloads

The *Try It!* sections of this book include downloadable worksheets for students to actively process the concepts they are learning. This page compiles the available worksheets for easy reference.

Chapter 2: *Explore the Planning-Monitoring-Evaluation Cycle*

- [Planning-Monitoring-Evaluation Cycle Activity](#)

Chapter 4: *Evaluate Your Learning Skills and Strengths*

- [Multiple Intelligences Learning Activity](#)

Chapter 5: *Evaluate Your Current Learning Strategies*

- [Learning Strategies Checklist](#)

Chapter 6: *Set Goals to Move Ahead*

- [SMART Goals Activity](#)

Chapter 7: *Analyse Your Course Presentation*

- [Course Presentation Activity](#)

Chapter 8: *Connect With Your Instructor*

- [Instructor Communication Activity](#)

Chapter 10: *See Your Semester at a Glance*

- [Semester Schedule Planner](#)
- [Semester Schedule Planner (11×17)](#)

Chapter 11: *Create a Weekly Schedule that Works*

- [Weekly Schedule Planner](#)
- [Weekly Schedule Planner (11×17)](#)

Chapter 15: *Read with a Purpose: The SQ3R Strategy*

- [SQ3R Activity](#)

Chapter 16: *Take Notes from Lectures – That You'll Actually Use*

- [Note-Taking Template](#)

Chapter 22: *Develop an Assignment Plan*

- [Assignment Planning Template](#)

Chapter 27: *Organize Review Sessions Strategically*

- [Create a Strategic Study Plan](#)

Chapter 30: *Evaluate Your Learning*

- [Use Evaluation to Support Planning](#)

Chapter 31: *Develop a Growth Mindset*
[Growth Mindset Evaluation](#)

References

Anderson, L. W., & Krathwohl, D. (Eds.). (2001). *A taxonomy for learning, teaching, and assessing: A revision of Bloom's taxonomy of educational objectives.* New York: Longman. ↵

Armstrong, T. (2017, May). *Multiple intelligences in the higher education classroom*. Keynote presentation presented at the Learning Specialists Association of Canada National Conference, Montreal, QC. ↵

Bloom, B., Englehart, M. Furst, E., Hill, W., & Krathwohl, D. (1956). *Taxonomy of educational objectives: The classification of educational goals. Handbook I: Cognitive domain*. New York, Toronto: Longmans, Green. ↵

Buzan, T. (n.d.). *What is a mind map?* Retrieved from http://www.tonybuzan.com/about/mind-mapping

Chen, P., Chavez, O., Ong, D. C., & Gunderson, B. (2017). Strategic resource use for learning: A self-administered intervention that guides self-reflection on effective resource use enhances academic performance. *Psychological Science*, 28(6), 774–785. https://doi.org/10.1177/0956797617696456

Chick, N. (2017). *Metacognition*. Retrieved August 31, 2017, from https://wp0.vanderbilt.edu/cft/guides-sub-pages/metacognition/ ↵

Dubuc, B. (2002). *Memory and learning*. Retrieved March 12, 2018, from http://thebrain.mcgill.ca/flash/a/a_07/a_07_p/a_07_p_tra/a_07_p_tra.html ↵

Doran, G.T. (1981) There's a S.M.A.R.T. way to write management's goals and objectives. *Management Review* 70 (11): 35–36.

Dunlosky, J., Rawson, K. A., Marsh, E. J., Nathan, M. J., & Willingham, D. T. (2013). Improving students' learning with effective learning techniques: Promising directions from cognitive and educational psychology. *Psychological Science in the Public Interest*, 14(1), 4–58. https://doi.org/10.1177/1529100612453266 ↵

Dweck, C. S. (2008). *Mindset: the new psychology of success*. New York: Ballantine Books. ↵

Kwantlen Polytechnic University Learning Centres. (n.d.). Learning with your mutiple intelligences. Retrieved from https://www.kpu.ca/sites/default/files/Learning%20Centres/Study_MultipleIntelligences_LA.pdf ↵

Locke, E. A. (1968) Toward a theory of task motivation and incentives. *Organizational Behavior and Human Performance* 3 (2): 157

McMaster University. (2005). *What questions engage students?* Retrieved April 23, 2018, from http://cll.mcmaster.ca/resources/pdf/what_questions_engage_students.pdf

Michael, J. (2006). Where's the evidence that active learning works? *Advances in Physiology Education*, 30(4), 159-167. https://doi.org/10.1152/advan.00053.2006 ↵

MindTools Content Team. (n.d.). *Introduction to memory techniques.* Retrieved from https://www.mindtools.com/memory.html ↵

Oppenheimer, D. (2017, January). *On Noteworthy Notes: Not All Note Taking is Created Equal*. Webinar presented at the Learning Specialists Association of Canada.

Oregon State University Academic Success Centre. (n.d.) *Six Reasons People Procrastinate*. Retrieved from success.oregonstate.edu/six-reasons-people-procrastinate ↵

Paunesku, D., Walton, G. M., Romero, C., Smith, E. N., Yeager, D. S., & Dweck, C. S. (2015). Mind-set interventions are a scalable treatment for academic underachievement. *Psychological Science*, 26(6), 784–793. https://doi.org/10.1177/0956797615571017 ↵

Robinson, Francis Pleasant (1978). *Effective Study* (6th ed.). New York: Harper & Row. ↵

Salustri, F. (2015). Four levels of questions. Retrieved April 23, 2018, from http://deseng.ryerson.ca/dokuwiki/design:four_levels_of_questions

Steel, P. (2007). The nature of procrastination: A meta-analytic and theoretical review of quintessential self-regulatory failure. *Psychological Bulletin*, 133, 65-94. http://dx.doi.org/10.1037/0033-2909.133.1.65 ↵

Study Guides and Strategies. (n.d.). *Influencing teachers and improving classroom communication skills*. Retrieved from http://www.studygs.net/attmot2.htm ↵

Study Guides and Strategies. (n.d.). *Multiple choice tests*. Retrieved from http://www.studygs.net/tsttak3.htm

Tanner, K. D. (2012). Promoting student metacognition. *Cell Biology Education*, 11(2), 113–120. https://doi.org/10.1187/cbe.12-03-0033 ↵

University of Toronto (2002).*Tips for success: Mastering multiple-choice tests*. Retrieved from http://bio150.chass.utoronto.ca/tips/testtips.htm ↵

UNSW Sydney. (n.d.). *Growth mindset*. Retrieved from https://student.unsw.edu.au/growth-mindset ↵

Whitehead, J., Fraenkel, C., Yu, E., & Van Der Mark, A. (2017, February 1). *Memory*. Retrieved from http://etec.ctlt.ubc.ca/510wiki/index.php?title=Memory&oldid=63689 ↵

Yeager, D. S., & Dweck, C. S. (2012). Mindsets that promote resilience: When students believe that personal characteristics can be developed. *Educational Psychologist*, 47(4), 302–314. https://doi.org/10.1080/00461520.2012.722805 ↵