

LEARNING AND STUDYING GUIDELINES AND RESOURCES

The resources on this page provide strategies for how to approach learning, effectively prepare for and take exams, and cope with and reduce stress. Please speak further with any teacher or dean if you have questions or comments or feel you are in need of any emotional or academic support.

On the following pages you will find:

- Learning Tips for Students from Make it Stick: The Science of Successful Learning
- Effective Learning Techniques: Promising Directions From Cognitive and Educational Psychology
- Essential Guidelines to remember during exam period
- Coping Techniques for Exam Stress
- Managing Test Anxiety
- Techniques for getting into the right mindset for an exam
- Study Tips from Top Universities

Sean Raymond, Academic Dean, and Joyce Sherry, Dean of Students

Learning Tips for Students from *Make it Stick: The Science of Successful Learning* [PDF]

A concise overview for students of the learning strategies retrieval practice, spacing, and interleaving, including discussion of what these strategies look like in practice, what one's intuition tells one's self, why these techniques are better, and how learning feels in practice.

Effective Learning Techniques: Promising Directions From Cognitive and Educational Psychology

In a world as fast-changing and full of information as our own, every one of us—from schoolchildren to college students to working adults—needs to know how to learn well. Yet evidence suggests that most of us don't use the learning techniques that science has proved most effective. Worse, research finds that learning strategies we do commonly employ, like rereading and highlighting, are among the least effective.

The scientific literature evaluating these techniques stretches back decades and across thousands of articles. It's far too extensive and complex for the average parent, teacher or employer to sift through. Fortunately, a team of five leading psychologists have done the job for us. In a comprehensive report released earlier this year by the Association for Psychological Science, the authors, led by Kent State University professor John Dunlosky, closely examine ten learning tactics and rate each from high to low utility on the basis of the evidence they've amassed.

Here's a quick guide to the report's conclusions:

The Best

In contrast to familiar practices like highlighting and rereading, the learning strategies with the most evidence to support them aren't well known outside the psych lab. Take distributed practice, for example. This tactic involves spreading out your study sessions, rather than engaging in one marathon. Cramming information at the last minute may allow you to get through that test or meeting, but the material will quickly disappear from memory. It's much more effective to dip into the material at intervals over time. And the longer you want to remember the information, whether it's two weeks or two years, the longer the intervals should be.

The second learning strategy that is highly recommended by the report's authors is practice testing. Yes, more tests—but these are not for a grade. Research shows that the mere act of calling information to mind strengthens that knowledge and aids in future retrieval. While practice testing is not a common strategy—despite the robust evidence supporting

it—there is one familiar approach that captures its benefits: using flash cards. And now flash cards can be presented in digital form, via apps like Quizlet, StudyBlue and FlashCardMachine. Both spaced-out learning, or distributed practice, and practice tests were rated as having “high utility” by the authors.

The Worst

Highlighting and underlining led the authors’ list of ineffective learning strategies. Although they are common practices, studies show they offer no benefit beyond simply reading the text. Some research even indicates that highlighting can get in the way of learning; because it draws attention to individual facts, it may hamper the process of making connections and drawing inferences. Nearly as bad is the practice of rereading, a common exercise that is much less effective than some of the better techniques you can use. Lastly, summarizing, or writing down the main points contained in a text, can be helpful for those who are skilled at it, but again, there are far better ways to spend your study time. Highlighting, underlining, rereading and summarizing were all rated by the authors as being of “low utility.”

from Annie Murphy Paul’s *The Brilliant Report*

Read more here: [“Improving Students’ Learning With Effective Learning Techniques: Promising Directions From Cognitive and Educational Psychology”](#)

The Essential Guidelines to remember during exam period include the following:

- Stay on a regular schedule
- Follow your teachers’ study guides
- Eat a well-balanced diet, hydrate and maintain exercise
- Avoid stimulants
- Make sure you leave time for proper sleep

Coping Techniques for Exam Stress

For many students, exam time is particularly stressful. While the body’s stress response can enhance one’s ability to perform well under pressure (what we can call good stress, eustress, or the appropriate level of anxiety) research also tells us that bad stress has negative effects on memory and the learning process. We can’t stop stress, but we can learn to manage it. Therefore, York intentionally builds a safe, supportive learning community, one which offers a social and emotional experience conducive to lasting learning. Paradoxically, students sometimes attempt to cope with stress in counter-productive or even self-defeating ways, and such behavior and attitudes can diminish performance on exams and projects rather than enhance it.

While there is no guarantee for an easy time on exams, there are some specific guidelines that students can follow which will help them learn more efficiently during exam time. Remember that you are not alone: almost everyone gets somewhat anxious at exam time.

It does **not** help to put added stress on yourself by:

- 1) keeping irregular hours
- 2) pulling all-nighters
- 3) eating irregularly or eating junk food
- 4) relying on ineffective learning strategies

Lake Meditation for relaxation (created by Joyce Sherry, Dean of Students)

<https://www.youtube.com/watch?v=SNf8Pb61Wuw>

• **Deep Breathing Exercises for Dealing with Stress and Aiding Mindfulness**

Deep Breathing

1. Lie down or sit in a comfortable chair, maintaining good posture. Your body should be as relaxed as possible. Close your eyes. Scan your body for tension.
2. Pay attention to your breathing. Place one hand on the part of your chest or abdomen that seems to rise and fall the most with each breath. If this spot is in your chest you are not utilizing the lower part of your lungs.
3. Place both hands on your abdomen and follow your breathing, noticing how your abdomen rises and falls.
4. Breathe through your nose.
5. Notice if your chest is moving in harmony with your abdomen.
6. Now place one hand on your abdomen and one on your chest.
7. Inhale deeply and slowly through your nose into your abdomen. You should feel your abdomen rise with this inhalation and your chest should move only a little.
8. Exhale through your mouth, keeping your mouth, tongue, and jaw relaxed.
9. Relax as you focus on the sound and feeling of long, slow, deep breaths.

Complete Natural Breathing

1. Sit or stand with good posture.
2. Breathe through your nose.
3. Inhale, filling first the lower part of your lungs then the middle part, then the upper part.
4. Hold your breath for a few seconds.
5. Exhale slowly. Relax your abdomen and chest.

Practice these two exercises, in whatever combination feels best for you, for ten minutes, twice a day.

(Taken from Davis, Eshelman, and McKay; The Relaxation and Stress Reduction Workbook, 2nd edition; New Harbinger Publications, 1982.)

Managing Test Anxiety (from Joyce Sherry, Dean of Students)

The first thing to understand about test anxiety is that it's perfectly normal. There's hardly a soul who doesn't experience nerves and anxiety at test-taking time. In fact, some nerves are actually a good thing because they cause the release of adrenaline into the system which sharpens your thinking and heightens your reflexes. The problem only starts when your anxiety, rather than igniting your thinking, becomes a barrier to thinking straight. This can become debilitating test anxiety.

For more on the brain science and physiology of anxiety, see my post on "Dealing With Stress." (In Haiku > Dean of Students Office > Dealing With Stress) Stress, after all, is pretty much just anxiety that doesn't go away.

Okay, now it's time for a little soul searching. You're all alone; no one's going to know how you answer, so be honest with yourself. No judgment. Which category do you fall into?

Category 1: When it comes to studying for a test, I wait until the last minute, then cram everything into my head the night before.

Category 2: I make a study plan for myself, I study the material days ahead of time, I really think I know it, but I'm always surprised by the questions on the test. I don't know how to answer them.

Category 3: I study, but when it comes time for the test, it just all goes out of my head. I can't think of a single answer. I just sit there knowing that I'm going to fail.

You may find that you don't fall neatly into one category or another. Which predominantly fits your modus operandi?

If you fall into category 1, then feeling anxious about a test is hardly surprising. In fact, it's perfectly rational. You're not ready for the test. Resolve to change your ways and begin to study far earlier than the night before. Or worse yet, the period before. If you don't know how to do this, check in with me and we'll strategize together.

If you fall into category 2, it may be that you're not completely clear about what to focus on in a particular class. If this is the case, you absolutely must go see your teacher. Only your teacher can really help you to prioritize the information that's covered. Honestly, don't be bashful, get over your hesitation, and go! Whether it's here at York or once you go away to college, teachers love having students who take an interest in the subject matter and who show a willingness to work to improve. Try not to go to your teacher and say, "What can I do to get an A in your class?" Instead, explain that you feel you studied the wrong things, and ask for help determining the best way to study for this particular class. If you have questions about your test answers, ask them. Your goal is to learn the material. Twenty years from now, you won't remember what grade you got in the class; you will remember the content you truly learned.

But what if you fall into category 3? This is where we see the fallout from true test anxiety. Here are some truths to remember:

Your teachers really want you to succeed. The point of the test is not to trip you up (no matter how much it might seem to be in the moment!). The point is to show you and your teacher what material you have fully grasped and what you need to work on more.

A grade on a test or quiz is not a reflection of your value as a human being! It is not a determining factor of your future success, either in the class or in life as a whole.

Your friends did not pick you for your test grades. They will not dump you for your test grades. If they tease you for a poor test grade, they are ass—um, jerks. Jerks do not deserve to be taken seriously.

People learn differently. Things come easily to some while others have to work their tails off. This does not determine anyone's worth as a human being. It simply is. The truth is that people who develop tenacity, courage and resilience tend to be more successful in college and life than people to whom everything came easily.

This is only one test. There will be others. The score from one test is factored into all of the scores from your other tests in the subject. That overall score is then factored into your homework scores, project scores, class participation scores, etc.

Stop being judgmental. Give yourself a break. Be the kind of friend to yourself that you are to others.

Techniques for getting into the right mindset for an exam (from Joyce Sherry, Dean of Students)

The most reasonable, rational thing you can expect of yourself is to try to show as much of what you know about the material as you can. If you have only a partial idea, write it down. If you really can't think of how to approach the question, don't dwell on it. Move on.

Break your studying up into smaller chunks (*we call this technique spacing*). Try studying for a half hour, then take a break from it.

Do work for another subject, listen to music, spend fifteen minutes on YouTube (set a timer), get a snack. Come back to studying after a half hour or so.

When you study, formulate questions about the material. Sometimes you can even guess a question that will be on the test. Answer the questions. (*this is a form of retrieval practice: testing yourself to prepare for a test*)

Get a good night's sleep before the test. In fact, try to get a good night's sleep every night. Adolescents need at least 9 hours a night. Staying up to study just that little bit more illustrates the law of diminishing returns. The later it gets, the less you'll remember. Add to this that lack of sleep makes it harder to think and far tougher to be resilient in the face of challenge.

Avoid caffeine before the test. Even people who can handle the substance well may find themselves over-amped when they mix caffeine and adrenaline.

Try to relax before test. Chat with friends, soak up some sun, read a book, listen to music, or otherwise do something that you would find pleasant.

And now, you walk into the test room...

Don't buy into anyone else's drama. People love to flutter around all atwitter about an upcoming test. It does no one any good—not them, not you, not anyone around you. Smile, nod, but keep breathing. Don't quiz them. Don't ask them to quiz you. Don't get wrapped up in thinking you missed something if they ask if you studied X and you didn't. Maybe they're wrong that X is even important. And anyway, it's too late now even if it is important. Remind yourself: "I'm going to show what I know. I'm going to do my best. No one (not even I) can ask anything more of me."

Once the test is on your desk, place your hands on top of it, close your eyes, and breathe. Take seven deep, steady breaths in and out through your nose. Feel the air cooling your upper lip on the way in and warming it on the way out. As you breathe, say something to yourself like, "Breathing in, I calm my body; breathing out, I calm my mind." This takes only 90 seconds, max, so really, you've got the time.

If you still feel ajitter, your heart is pounding, you're having trouble focusing, place your feet flat on the floor. Tense the muscles of your feet. Hold. Relax them. Tense the muscles of your calves. Hold. Relax them. Your thighs. Your stomach. Your chest. Your hands, arms, shoulders, neck, face. (At this point, your teacher might come over to ask if you're okay—Why are you grimacing like that?—it'll give you both a chance to laugh. That's a good thing!)

Now take a look at the sections of the test (if applicable). Make sure to read all directions twice. Start with a question you feel pretty confident about. As you work through the questions, skip any that you're unsure of. Put an asterisk (a star) next to them so you remember to come back to them. Remember, it's okay if you're not sure. When you come back, you're just going to put down anything you can, showing what you know, even if it's only a piece of the whole.

Any time you feel the anxiety creeping in, tense and relax your muscles and/or take a few deep breaths.

If your brain goes into negative talk ("You're too stupid for this" or any of those other horrible things our inner-critic is all too fond of saying to us), note it, then let it go. You can say, "What an interesting thought. I'll have to ask myself why I think that. But later, not now. Now, I'm busy."

Work for yourself. Others may finish early and get up to hand their tests in. That's them. They are not you. Take a moment to mentally congratulate them. Or not. Now, get back in there!

Find a moment to clear your mind. If it's allowed, ask the teacher a question (even if you're pretty sure you know the answer), get a drink of water, go to the bathroom, sharpen your pencil.

Sometimes just moving can make a world of difference. Walk slowly, don't rush.

After the test, don't just dive right back into the same old routine. Reward yourself. If it's a morning test, pack a special treat for lunch. If it's in the afternoon, have a favorite snack at workjobs (you can tell I'm food motivated!). Walk around the field alone or with a friend and take in the smell of grass and trees. Whatever works for you, make a promise to yourself before the test that you will reward yourself afterwards. Keep the promise!

Study Tips from Top Universities

Stanford - Study Tips

<http://www.stanford.edu/dept/CTL/Student/studyskills/top11.pdf>

Dartmouth - Exam Tips

http://www.dartmouth.edu/~acskills/docs/exam_prep_strategies.pdf

Duke - How to Form a Successful Study Group

<http://duke.edu/arc/documents/How%20to%20Form%20a%20Successful%20Study%20Group.pdf>

Princeton - Putting Your Extra Curricular Skills to Use in Your Studies

<http://www.princeton.edu/mcgraw/library/for-students/extracurricular-skills/extracurricular-skills.pdf>

US Air Force - Memory Techniques

<http://www.au.af.mil/au/awc/awcgate/usafa/memory.htm>