

Learning Strategies

In Advanced Educational Settings



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How to Use This Video

- Note that you can pause and start the video below my picture. You can use the slide bar to advance or repeat
- In the upper right are buttons that control the presentation to your needs
 - The buttons allow you to see all the slides and to jump directly to those that interest you.
 - My talk picks up on what ever slide you jump to

About me

- Coordinator of Testing/Psychologist at The University of Akron CTCC
- CTCC located in Simmons Hall 306
 - Free service to University of Akron students
 - 330-972-7082 for an appointment with any of the psychologists or counselors
- Learning Specialist NEOUCOM/P
 - Office of Career Development and Advising B206
 - Free service for medical/pharmacy students
 - 330-325-6735

Today's talk

- Study skills, test taking, anxiety management skills
- I know these work
 - Because I have taught them to students over the last 28 years and have seen them succeed
 - Many of the methods I used while going to college and graduate school

Advanced Education Is a Step Up

- College and graduate education requires that you improve your study skills
- Very different expectations about the responsibility for your learning
 - You structure your learning
 - Your classmates are much better students
 - Work load much larger
- There are other less obvious skills for you to learn that really help, such as politics

Take care of yourself

- Get enough sleep
 - Attend class awake
- Eat and exercise well
- Attend to any problems that get in your way early
 - Anxious or discouraged?
 - Relationship problems?
 - Learning problems?

Develop A Support System

- For any course, finding a student who took it before is golden (M2, tutors)
- Talk to other students
 - Compare notes/share resources
 - Discuss what you think is going to be on the test
- Faculty (and assistants)
- Support services
 - Developmental Programs
 - Academic Advisors/PDAT helpers

Figure out what is important early

- Hard/easy course?
- Kinds of tests?
 - Essay tests require memorization of lists
- Where does test material come from?
- Professors office hours?
 - Where else can you get help?

Organize yourself

- Every professor owes you a syllabus
- Plan out your work so you are not overloaded
 - You may be taking three midterms in a week
 - Consistent effort superior to cramming
- Make sure you have time for school
 - Don't schedule more than 70 hours per week or you will likely be overwhelmed.
 - Biggest difficulty is work

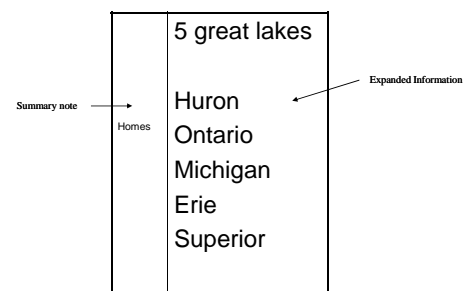
What to Do In Class

- Attend awake
- Form relationship with professor
 - Sit close to the professor
 - Familiar
 - Ask/answer questions
 - Up close narrows perceptual field so you will pay more attention
- If you can't follow logic of professor get help

Note Taking 1 Memory Strategies

- Serial (requires most brain horsepower)
- Visual or pictures
- Mnemonic (HOMES, EGBDF)
- Conceptual framework
 - Requires you to think about the information
 - Heart questions (process)
 - Shopping list (grouped content)
 - Fits with Cornell note taking

Cornell Style Note



Note Taking 2 Cornell Style Notes

- Use your own words – this makes you think
- Go over your notes in 24 hours
 - 50% gone after 24 hours
 - Take notes on your notes
 - Adjust your note taking (usually means shorter)
 - Tend to pay attention more since you have to go over your notes tonight
 - If you don't understand, get help elsewhere (professor, classmates)

Adding Structure to Your Study

- Structure vs. “feel like it approach”
- Make a schedule
 - Time, place, what material
- Study blocks
- Study at the same place (stimulus control)
- Study in a quiet environment

Increasing Study Concentration

- Only study in studious places
- Only study at your desk (no daydreaming)
 - Desk will make you want to study
- If you must take a break, get up from the desk
 - Designate a “break chair”
- Greatly improves concentration
- You will learn much faster

Structure Enhances Motivation

- Many people are waiting to be motivated
 - (“I wish I was more motivated”)
 - Motivation fairy is a myth
 - Motivation is self management
- Make a schedule and mark it when you keep to it
- Involve someone else in this process

Structure Ensures That You Prepare Early

- It takes 12 to 16 hours to integrate information into your thinking
- Cramming guarantees that you will do poorly
 - No chance to get help
 - Very poor efficiency
 - No chance to really understand the material

Effective Reading

- After you read over your notes
- Two styles of reading
 - More intense concept mapping
 - Less intense repeated reading
- Skim what you are about to read first
- Read with concept mapping
 - Underline, small notes in book, notes on paper
- Think about what you read – up to 50% of your time
- Read so you really understand the material

Repeated Reading and Color Coding

- Another reading style is multiple passes
- Read the material not getting bogged down
- Read again to more understand
- Works well with color coding
 - Use increasingly darker colors to highlight the key points
 - Make some key notes
- Visual sort of learning strategy

Group Study

- If you develop a study group you will have a tremendous advantages
- Four of you will always be able to prepare better than any one person in the group
- Even if you only meet two or three times this really helps

Pre-test Group Study

- Pick several students like you
- The week before a test agree to meet
- Each person bring 25-50 questions to the group
- Take turns answering each other's questions
 - You present a question, the other students write down the answer on paper
 - Discuss the answer

How Pre-test Groups Help

- You will know the 25-50 questions you brought
- You will also learn the other student's questions/answers
- Answering questions is extremely effective learning
- You will also be answering in the best possible way "What's going to be on the test?"
- You can pool resources
- Persons who work alone will be competing with your group

Faculty Help

- Best to make an appointment or arrive during office hours
- Have questions already prepared
 - Not "what happened in class today"
- You can bring a friend and both ask questions – you will learn more
- Faculty will have a tendency to emphasize material on the test
- Remember politics count (sitting close, etc.)

Learning Science and Math

- Math is learning process that you apply in a novel situation
 - Anatomy vs. Physiology
 - Knowing about swimming vs. swimming
 - Knowing about flying vs. flying a plane
- You will see the exact problem for the first time on the math test
- Different from content learning
 - Content is the name of the material
 - Process requires knowing "how it works"

How to Learn Math

- Reading about a process skill doesn't help
 - Learning to swim requires that you get in the water
 - Flying a plane requires you to get in the plane
- Learning math requires that you do more than observe
 - You have to train yourself so that you can do the problems without any help
 - Math tutor who does it for you in front of you is not helping
 - Example of learning to fly

Do your math assignments actively

- The whole point of doing your math homework is to learn the concepts involved
- It is critical that you keep testing yourself
- Do your homework by yourself
 - As much as possible you want to gain confidence in yourself
 - Only seek help when you are really stuck
 - You must be able to do your homework by yourself by test time to do well
- Memorizing steps without understanding what you are doing doesn't work – know concepts

Several math homework strategies

- Use your notes as a guide
- Start with the simpler problems
- Go back through the book and your notes for examples
- If you get help on your homework do extra problems to show that you actually know how to do the work.

Before the math or science test

- Do a sample of each kind of problem you may have
 - Understand concepts, not memorize steps
- Memorize any formulas
- See if there are any sample or old tests available

Go to class to learn math skills

- What is missed may be critical to a longer process – ladder rungs
- Be active in class and ask questions
- Take notes and go over them within 24 hours
- Make sure you know where to get extra help
 - Math lab or ask the professor

Test Taking Strategies

- Essay and short answer
- Multiple Choice
- Math and Science

Preparation Essay Tests

- Talk to other students and professor about kinds of questions
- Make one word lists of important facts
 - Mnemonics to help you remember
- Practice doing several essays (show to professor)
- Be sure you understand the question:
 - List
 - Compare and contrast

Taking an Essay Test

- Read the question carefully
 - Take note of "do three of the five questions"
 - Understand what the question is asking
- Make a brief outline first
 - You remember to address everything on the list
 - Logical answers better
 - Neat answers are better
- Always say something

Multiple Choice Tests

- This is a suggested method based on Kaplan's strategies.
 - If something else works for you then do it
- Test Strategy
- Item Strategy

Multiple Choice Test Strategy

Sequential Administration

- Think of the test as a conveyer belt
 - Items move past you one at a time
 - You focus exclusively on this item
 - Once you have carefully answered the item, you move on
- You don't worry about past items because they are done.

Multiple Choice Test Strategy

Sequential Administration

- Your first hunch is usually your best
 - More intuitive
- If you do one item at a time you are less vulnerable to "magic thinking"
 - Responding to how the question looks rather than the content
 - "The last four have been B so this can't be B."

Multiple Choice Test Strategy

Saving hard questions for later

- The idea that you will know the answer later is a myth
- Saving all the hard ones till last can make you nervous
- If you are going to return to items you may keep thinking about them
- Changing items typically damages your score - especially if anxious
 - Three possibilities (W-W, R-W, W-R)

Multiple Choice Item Strategy

- Read the question carefully
 - Read question first, not answers
 - Circle important words like "not"
- Can you answer the question in your head?
- Find the answer
- Rule out the other answers as wrong
- Gives equal time to the easy questions

Avoid Guessing Strategies

- Longer answers, middle of the road answers, C, more general answers, etc.
- Divert your attention from the item content to how the item looks.
 - 1, 10, 100, 1000, 10000 example
 - .01, .1, 1, 10, 100
- Professionally developed tests defend against guessing strategies
- National tests lay traps for you
 - 10 in a row example

Don't Know The Multiple Choice Test Answer?

- Rule answers that seem wrong
- Guess rather quickly (less than ten seconds)
 - If you spend longer you are prone to answering based on a guessing strategy that doesn't work
- Go on and don't return

Exceptions in Multiple Choice Tests

- Computer tests that have items that involve simulations or videos take longer. Mark these and come back to them at the end
- If the item requires calculation and on your first pass you don't have a correct answer, mark the item and come back

Taking Math Tests

- Test strategy the opposite of multiple choice tests
 - If you can't do an item, move on as others may be easier.
- Anxiety management is particularly important for math tests
 - Anxiety inhibits skill performance more than content performance

During the test

- Dump any formulas first thing so you remember them.
- Show your work clearly
- Show where the answer is on the page
- Run out of time on the harder items
- Check for careless errors
- After the test make sure you understand what you did wrong

Test Anxiety Management

- Bad experiences lead to
 - Conditioning
 - Development of “failure” language
- Places and symbols can become triggers for anxiety
 - Picking up your test
 - Others leaving, the clock, others discussing test before it begins, not knowing three in a row, etc.

Three Step Solution to Test Anxiety

- Train yourself to relax on command
- Develop a list of anxiety producing situations that you know are triggers for your feeling anxious during tests
- Practice pairing relaxation and reasonable thoughts with these events

Covert Training Works

- Waiting till test day is too late
 - “Remain calm in case of fire on the ship”
 - You have to train how to remain calm
- You can practice using your thoughts and this will be effective
 - Baby rabbit experiment

Training Yourself To Relax

- Obtain a relaxation CD
 - Overt voice, may have music
 - Subliminal messages don't work
 - Listen several times until you know how to relax on command
- 15 minute relaxation script at:
<http://video.uakron.edu:82/counseling/Relax.mp3>

Develop Positive Phrases

- Don't know an item – “I don't have to get them all to do well”
- “I can do it”
- “Relax and keep going”

Make a List of Anxiety Producing Test Situations

- Low anxiety
 - There will be a test next week
 - Waking up and realizing there will be a test
 - Going to the room
- Higher anxiety
 - Not knowing three or so in a row
 - Others leaving when you are half way done
 - Others talking before the test and you don't know what they are talking about
 - Seeing you have five minutes left on the clock

Pair each item on your list with relaxation and reasonable phrases

- Start at the least anxiety producing situation
- Imagine yourself there
- Say "relax" and a reasonable phrase
- Let yourself relax (breath out)
- Do it again ten times
- Go down the list

Practice Makes Perfect

- Five days of going through your list will really help
- Like learning a dance step
- Practice makes the phrases available to you
- If you find you can't get better, seek professional help

Instructions for Test Anxiety Management can be found at:

<http://www.uakron.edu/counseling/docs/anxietyh.pdf>

About us



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- B206 at NEOUCOM 330-325-6735
- <http://www.neoucom.edu/audience/students/departmentContacts/OfficeProfDev/>
- Individual appointments for development of learning skills