Self-Regulation

RETURN TO WELCOME SCREEN

Defining Self-regulated Learning

Click for introductory video.

Self-regulation is an integrated learning process, consisting of the development of a set of constructive behaviors that affect one's learning. These processes are planned and adapted to support the pursuit of personal goals in changing learning environments.

Sean is a fifth grader who seems bored and disinterested in all academics most of the time in school. He fidgets constantly, is in trouble often for being "off-task" and has been referred for assessment as having attention deficit/hyperactivity order (ADHD) for the last three years. His teacher reports that he rarely finishes his school work, daydreams, and is rarely on task. He is in danger of not learning basic information required by the district and state curriculum standards. Sean's mother, a pediatrician, does not believe that he has ADHD, but rather, that he is not challenged and is not provided enough opportunities for movement in his traditional school environment. Sean and his father, who also has an extremely high energy level, frequently build intricate rockets together, and Sean can sit quietly for hours when he is engaged in challenging work of his own selection. Sean tested at the 99th percentile in general aptitude but his work in school is often below average. His lack of completion of schoolwork is becoming increasingly problematic, particularly when it appears that he does have the self-regulation to finish work he wants to pursue at home. Sean is being labeled an underachiever and his teacher believes he needs to gain self-regulation strategies. How does his teacher help him in this process?

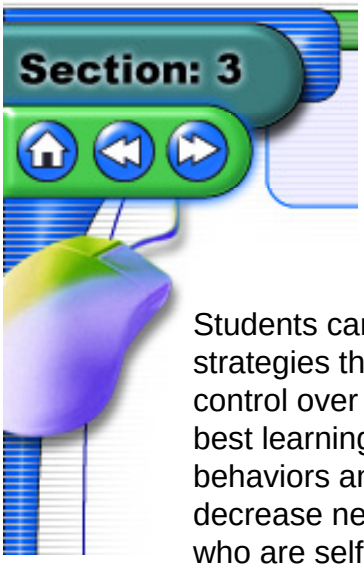
As you consider the concept of self-regulation, keep these three key points in mind:

- Self-regulated learning is a fairly new construct in research on student

performance and achievement in classroom settings.

- A common set of self-regulation strategies exists, as well as an *individual* set of skills that each student must develop personally to be successful in school and life.

- These self-regulation skills can be taught, learned, and controlled.



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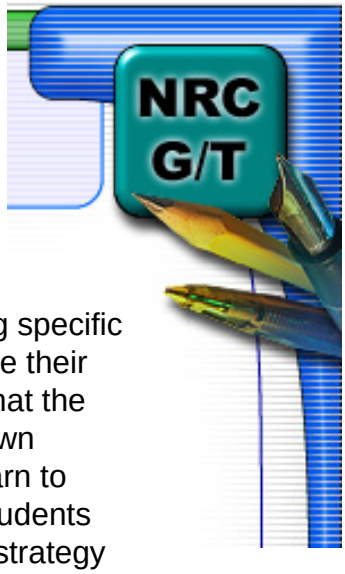


Students can be taught to become more self-regulated learners by acquiring specific strategies that are both successful for them and that enable them to increase their control over their own behavior and environment. Most researchers agree that the best learning occurs when someone carefully observes and considers his own behaviors and acts upon what he has learned. This means that students learn to decrease negative behaviors and increase positive behaviors. Therefore, students who are self-regulated must learn to continually ask themselves "Does this strategy work for me in this situation?" In order to self-regulate, students must shift their focus from comparing their performance to peers to self-comparisons, and from being reactive to being proactive learners. Goals direct activities, and students must learn that there are different ways to attain goals, and how to select the best way to complete a specific task. In many classrooms, teachers assume most of the responsibility for the learning process and students may begin to depend on this model of learning.

Case Study

This portrait of Maria will be used to illustrate strategies throughout this module.

> Maria is an eighth grade student who was identified as gifted in first grade. She read at the seventh grade level by the time she finished second grade and has always scored at the 99% on all areas on standardized achievement tests. She excels in language arts, but has extremely high scores across all areas. Maria does not like math and had coasted through the math curriculum from first through seventh grade, doing minimal homework and getting top grades. Because of her scores on achievement tests and previous grades, she is recommended for an advanced algebra class in eighth grade and encounters, for her first time in school, some challenge in mathematics. She struggles with a few concepts and begins to tell her parents that she is really not smart. She quits whenever she finds a homework problem she can not solve while doing homework and tells her parents she will ask the teacher the next day for help. She continues to do her homework each time it is assigned, but completes only the problems that she can easily do and gets help from her friends and teacher the next day if she can not quickly and correctly solve a problem. The answers to problems are in the back of the book so that after a few minutes of work, if she has not solved the problem, she looks it up in the back of the book but fails to learn how to solve the problem. She fails two tests, becomes convinced she is terrible at math and considers dropping out of the algebra class. How can she gain the self-regulation skills she needs to succeed in a more challenging class?


Self-Regulation
NRC/GT

Research

Current research indicates that some gifted students possess better self-regulated learning strategies than their peers, however gifted students may have done very well in school without using good self-regulation strategies because of a combination of their high abilities and/or an unchallenging curriculum. If learning is relatively easy for someone, less effort, organization and other self-regulated activities are expended. Social conditions or personal issues may prevent students from developing self-regulated learning strategies. For some students who already have some of these strategies, social or personal issues may prevent them from using them regularly, and thus, they need to be helped and encouraged to do so. Some gifted and talented students display perfectionism and need to learn to strive for excellence (their personal best) rather than perfection. Some talented students with high potential may find it difficult to learn self-regulation when it is not taught, modeled, or rewarded by the adults in their home and family. Even if students interact regularly with adults who demonstrate self-regulation, they may fail to use these skills themselves due to peer pressure or refuse to use the strategies their parents or teachers regularly employ at home or school.

Compared with low achieving students, high achievers set more specific learning goals, use a variety of learning strategies, self-monitor more often, and adapt their efforts more systematically. The quality and quantity of self-regulation processes is crucial. We must recognize that one self-regulation strategy will not work for all students, and that the use of only a few strategies will not work optimally for a person on all tasks or occasions. It is important that students learn to use multiple self-regulatory learning skills rather than single strategies. They must also learn that their goals and their choice of self-regulation strategies have to be continually adjusted. Our hope in this module is that we will be able to work with students to help them shift from performance goals to move towards mastery goals, focusing on understanding the material, persisting when they are challenged or their performance fails. This is especially critical for talented students who seldom experience high levels of challenge.

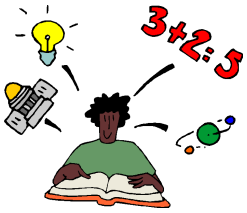
General Aspects of Academic Learning

As noted earlier, **self-regulation is an integrated learning process, consisting of the development of a set of constructive behaviors that affect one's learning. These processes are planned and adapted to support the pursuit of personal goals in changing learning environments.** Learners with high levels of self-regulation have good control over the attainment of their goals. Conscious self-regulation requires a student to focus on the process of how to acquire these skills.

According to Barry Zimmerman (1989), self-regulated learning involves the regulation of three general aspects of academic learning.

First, self-regulation of *behavior* involves the active control of the various resources students have available to them, such as their time, their study environment (e.g., the place in which they study), and their use of others such as peers and faculty members to help them (Garcia & Pintrich, 1994; Pintrich, Smith, Garcia, & McKeachie, 1993).

Second, self-regulation of *motivation and affect* involves controlling and changing motivational beliefs such as self-efficacy and goal orientation, so that students can adapt to the demands of a course. In addition, students can learn how to control their emotions and affect (such as anxiety) in ways that improve their learning.



Third and finally, self-regulation of cognition involves the *control of various cognitive strategies for learning,* such as the use of deep processing strategies that result in better learning and performance than students showed previously (Garcia & Pintrich, 1994; Pintrich, Smith, Garcia, & McKeachie, 1993).

Many researchers have agreed with the importance of self-regulated learning for students at all academic levels, and remember, self-regulation can be taught, learned and controlled. In fact, Zimmerman (1989, 1990), an expert in this area, has found evidence of many different types of self-regulation that are explained later in this module. In Zimmerman's studies, successful students report that the use of self-regulated learning strategies accounted for most of their success in school!

Phases of Self-Regulation

Three cyclical phases seem to emerge in the acquisition of self-regulation skills.

Phase 1. Forethought/preaction—This phase precedes the actual performance; sets the stage for action; maps out the tasks to minimize the unknown; and helps to develop a positive mindset. Realistic expectations can make the task more appealing. Goals must be set as specific outcomes, arranged in order from short-term to long-term. We have to ask students to consider the following:

- When will they start?
- Where will they do the work?
- How will they get started?
- What conditions will help or hinder their learning activities are a part of this phase?

Maria, for example, must be helped to think about her algebra homework and reflect on what she can do to be more successful. Is there a better time or place to do her homework? Should she begin it in school with her friends who are doing better than she is in algebra? Should she plan to spend at least five minutes on a problem before giving up and moving on? Should she have a friend standing by to help either in person or on the phone (a study buddy)? Should she ask for a tutor?

Phase 2. Performance control—This phase involves processes during learning and the active attempt to utilize specific strategies to help a student become more successful.

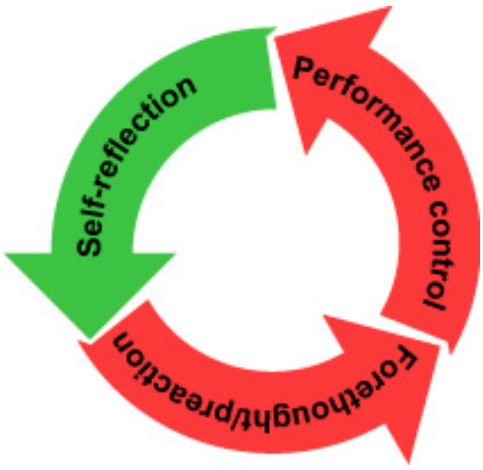
We have to ask students to consider the following:

- Are students accomplishing what they hoped to do?
- Are they being distracted?
- Is this taking more time than they thought?
- Under what conditions do they accomplish the most?

- What questions can they ask themselves while they are working?
- How can they encourage themselves to keep working (including self-talk—come on, get your work done so you can watch that television show or read your magazine!)

Maria, for example, has to consider her performance in math as opposed to other content areas. When frustration increases, should Maria stop and take a break? Should she do her math homework first in the afternoon, rather than putting it off until later in the evening? Should she have background music or work in silence? She is supposed to be using and considering the success or failure of some of the strategies she has thought about in phase 1.

Phase 3. Self-reflection—This phase involves reflection after the performance, a self-evaluation of outcomes compared to goals.



We have to ask students to consider the following:

- Did they accomplish what they planned to do?
- Were they distracted and how did they get back to work?
- Did they plan enough time or did they need more time than they thought?
- Under what conditions did they accomplish the most work.

Maria might ask, "What did I do differently?" "Did it work" Was a change in time or work habits effective at solving more algebra problems? Did calling a friend who was doing algebra homework at the same time (by prearranged planning) make a difference? Did setting a minimum time frame help? Did praising oneself aloud during this time have a positive impact? (All right, I did it!! Yes, I solved that problem!!)

The development of good self-regulation usually involves the following:

a. Self-observation—systematically monitoring own performance; keeping records is a big part of this!!

b. Self-judgment—systematically comparing performance with a standard or goal (e.g., re-examining answers; checking procedures; rating answers in relation to answer sheet, another person's)

c. Self-reaction—engage in personal processes (i.e., goal-setting; metacognitive planning; behavioral outcomes); self-administering praise or criticism; rehearsing, memorizing; proximal goal-setting; structuring environment (e.g.

change the academic task's difficulty; change the academic setting, the immediate physical environment; create a study area); asking for help.

Common Self-Regulation Strategies

The individual set of self-regulation strategies that are usually used by successful students fall into three categories: personal, behavioral, and environmental.

A. **Personal.** These strategies usually involve how a student organizes and interprets information and can include:

1. **Organizing and transforming information**

- outlining
- summarizing
- rearrangement of materials
- highlighting
- flashcards/ index cards
- draw pictures, diagrams, charts
- webs/mapping

2. **Goal setting and planning/standard setting**

- sequencing, timing, completing
- time management and pacing

3. **Keeping records and monitoring**

- note-taking
- lists of errors made
- record of marks
- portfolio, keeping all drafts of assignments

4. **Rehearsing and memorizing** (written or verbal; overt or covert)

- mnemonic devices
- teaching someone else the material
- making sample questions
- using mental imagery
- using repetition

B. **Behavioral:** These strategies involve actions that the student takes.

1. **Self-evaluating** (checking quality or progress)

    - task analysis (What does the teacher want me to do? What do I want out of it?)
    - self-instructions; enactive feedback
    - attentiveness

2. **Self-consequating**

    - treats to motivate; self-reinforcement
    - arrangement or imagination of punishments; delay of gratification

C. **Environmental:** These strategies involve seeking assistance and structuring of the physical study environment.

1. **Seeking information** (library, Internet)

    - library resources
    - Internet resources
    - reviewing cards
    - rereading records, tests, textbooks

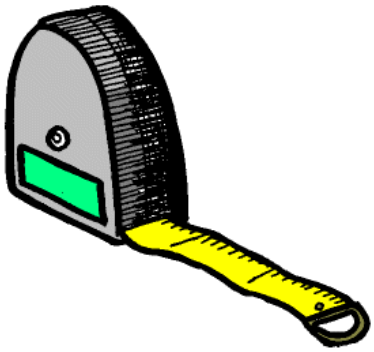
2. **Environmental structuring**

    - selecting or arranging the physical setting
    - isolating/ eliminating or minimizing distractions
    - break up study periods and spread them over time

3. **Seeking social assistance**

    - from peers
    - from teachers or other adults
    - emulate exemplary models

How-to Instruction for Self-Regulated Learning Strategies



Your role in helping students to gain self-regulation will be challenging and it is clear that your first attempt to teach a student a self-regulation strategy may not be successful. Why? It takes time and practice to gain effective habits. Initial efforts must be refined based on student's feedback, performance, and personal reflection.

Five common instructional practices that have been cited as effective in helping students learn self-regulation are:

1. **Guide learners' self-beliefs, goal setting, and expectations**
   - help students frame new information or feedback in a positive rather than a negative manner (e.g., "keeping track of your homework assignments will help you manage this course successfully," rather than "if you don't keep track you will fail")
   - provide specific cues for using self-regulatory strategies

2. **Promote reflective dialogue**
   - teacher modeling of reflective practices (think aloud)
   - student practice with reflective dialogue
   - group discussions to think through problems/cases (collaborative learning)

3. **Provide corrective feedback**
   - performance standards must be clear and perceived as attainable
   - phrase feedback (positive or negative) as a statement about the task of learning, not about the learner

4. **Help learners make connections between abstract concepts**
   - use case-based instructions or examples that students come up with themselves
   - use hands-on learning activities
   - help students learn to separate relevant from irrelevant information (i.e., help them know where and how to focus their attention; guide their reference standards)

5. **Help learners link new experiences to prior learning**
   - use experiential learning activities
   - focus on application of knowledge in broader contexts
   - integrate real-life examples with classroom information

Learning Academy Model

Some teachers have instructed students in Self-Regulation by adapting a Learning Academy Model (Zimmerman, Bonner, & Kovach, 1996). Learning Academies help students focus on behavior and emphasize expert and peer modeling, direct social feedback for performance efforts, and practice routines that involve goal-setting and self-monitoring. A great reliance is placed on tutoring and coaching during actual performance efforts. Students are taught to control their learning processes with self-monitoring and self-regulation so they can learn more with less effort by using the following steps:

- Evaluate current level of mastery
- Analyze the learning task
- Set learning goals
- Choose appropriate strategies to master material
- Monitor own performance

Using this approach, teachers:

1. shift the responsibility to the student - e.g., encourage students to exercise choices about how to accomplish learning activities; help student shift the focus of their regulation away from the teacher and onto salient cues in the learning task
2. adopt a systematic instructional approach; a cyclic self-regulatory approach to learning
3. demonstrate model (sequence is important: student observes model, imitates, practices in structured settings, then self-regulates by adapting to changing personal and contextual conditions)
4. demonstrate effectiveness of self-regulatory techniques; keep records of student's progress
5. use verbal persuasion; support and encouragement, especially when student perceives that new strategies are not working

The teaching strategies associated with the Learning Academy Model:

- break tasks into components
- use direct assistance and explicit training
- anticipate students' questions; have clear policy
- incorporate literary and other symbolic forms of information (pictures, diagrams, formulas)
- link strategy use with improved performance, i.e., maintain portfolios; video or audio tape

Individual Lessons 1-6

Now that you have some background on self-regulation and some of the strategies that can be used to successfully increase self-regulation, the following lessons have been developed to help you try to instruct students on how to develop their own strategies. Remember, a common set of self-regulation strategies does exist and these lessons are designed to help students develop the self-regulation demonstrated by those who are successful in school.

Lesson 1: Setting Short and Long Term Goals

Click for introductory video for Lesson 1.

Goals are specific objectives that help us to plan our activities and strategies. We shall consider how goals can be utilized by providing examples based on Maria, the case study of the talented student who was failing algebra.

A **short term goal** is a goal that only takes a few days or weeks to achieve, for example, to complete daily homework assignments or to spend more time on daily homework assignments and complete better quality work.

A **long term goal** takes several weeks, months, or even a full school semester of year, to achieve. An example would be to improve a grade by the end of the semester.

The following series of questions (from Heacox, 1991) is designed to guide you through an interview with a student. The questions will help your student (and Maria) successfully set goals:

1. What is one area of my school performance I want to improve? This goal should be long term, reasonable, attainable, and stated in a positive way. (In Maria's case, she decided to bring her algebra grade up to a B by the end of the second semester.)

2. What is one thing I can do to accomplish my long term goal? This short term goal should also be reasonable and reachable, but should also include a way to measure your progress. (In Maria's case it may be to stay after school one day a week with her algebra teacher for extra help or to arrange a study group with two of her friends to begin her homework in school. Maria might make a commitment to spend a half hour each day on her algebra work).

3. How can this short term goal be broken down into a step-by-step plan? Students could make a list of steps so they can check off each step when it is completed. (In Maria's case, she employs the following strategies. She sets two times a day for 15 minutes each time that she will work on her algebra homework. She also arranges two sessions a week that she works with a study group in school. She also arranges one day each week for after school help. She spends time each day going over her notes after class.)

4. What is good about doing this? What are the benefits to me? If you are only doing this to please someone other than yourself, then you are not as likely to reach your goal. (Maria begins to understand more of the concepts and is no longer upset about feeling stupid for the first time in her life. She gets better quiz grades and begins to feel better about being in the class.)

5. What are the things that might get in my way as I work toward my goal? By identifying possible obstacles, you can plan ahead, and think of ways to get around the obstacles. (Maria has a quick temper and a very low tolerance for frustration. She has never had any academic difficulties before and she begins to feel frustrated and panicked. When she encounters new challenging material, she can slip back into a panic mode so she has to prepare in advance for what she might experience. She may use self-talk, she may discuss this feelings of frustration with her teacher, she may confide in her parents or in a friend and by talking about the situation, choose some strategies to help her overcome her fear of failure.)

6. What special materials or help will I need to reach my goal? Make a list of books, materials, and people you may need for help. (Maria makes a point to do homework a couple of days each week with her best friend who is very good in math and is a calming influence on her.)

7. How will I reward myself when I achieve my goal? State your reward in a positive way, and try to make your incentives activities that you enjoy rather than money or things. (Maria rewards herself each time she gets through her homework without panicking or losing her temper by letting herself watch an extra half hour of television. She makes this agreement with her parents before she starts the process.)

8. How will I check on my progress and make sure that my plan is working? Write down people you need to check with and specific dates for your checkpoints (at least once a week is recommended) and have your plan signed and dated by the people you are working with. (Maria discusses this plan with her mother, her teacher and her best friend and they all agree to help her meet this goal.)

9. How will I remind myself of my goal? Write your goal on a piece of paper and put it somewhere obvious (e.g., inside your locker, on your bedroom mirror, inside your homework book) to remind you regularly (Maria gets a big white board and writes herself daily notes to be more positive about algebra and to stick with it when it gets tough. She also makes a point of making sure she keeps all of her promises to get the help she needs.)

10. How is my plan working? Is it working well? If not, why not? (If Maria's grades are not improving, she continues to reflect on what else she can do. Does she need to go twice a week for help? Does she need to find a math tutor? Will another ten minutes of homework a day help her?

11. Does my plan need to be revised? Is the goal still necessary, important, appropriate? Is the incentive right? Is the plan working? Have I reached my goal? If Maria's plan is working, that is great. If it is not, Maria will revise it. If she wants to be a successful student, she will continue to reflect on how she can achieve at higher levels.

For a printable form of these questions for students, click HERE.

Goal-Setting Questions (from Heacox, 1991)

These questions are for students to think about during an interview with you. This page should NOT be given as a homework assignment. It is intended to guide discussion and facilitate reflections.

1. **What is one area of my school performance I want to improve?**

2. **What is one thing I can do to accomplish my long term goal?**

3. **How can this short term goal be broken down into a step-by-step plan?**

4. **What is good about doing this? What are the benefits to me?**

5. **What are the things that might get in my way as I work toward my goal?**

6. **What special materials or help will I need to reach my goal?**

7. **How will I reward myself when I achieve my goal?**

8. **How will I check on my progress and make sure that my plan is working?**

9. **How will I remind myself of my goal?**

10. **How is my plan working? Is it working well? If not, why not?**

11. **Does my plan need to be revised?**

12. **Is the goal still necessary, important, appropriate?**

13. **Is the incentive right? Is the plan working?**

14. **Have I reached my goal?**

Lesson 2: Self-Consequating

Click for introductory video for Lesson 2.

In this lesson, students should brainstorm how they will reward and punish their own behaviors. Making promises to improve performance to themselves is the heart of self-consequating.

Explanation for students:

Self-consequating means choosing your own rewards and punishments based on your performance. Another way to think of self-consequating is that you are making a promise to yourself. Promising yourself a reward once your goal/task is satisfactorily completed, or promising a punishment if you do not complete it, can help you get motivated to achieve your own goals.

Your promises or rewards should not always be money or things. It is important to choose an incentive that is meaningful and enjoyable to you. Using a fun activity as an incentive is a good idea. Also, your rewards should be smaller for short term goal and bigger for long term goals. For example, if your goal is to study more each night for a week, then a reward could be 15 minutes of television or telephone for every hour you study. For a long term goal, like raising a grade from C to B in a month, a reward could be a special shopping trip or an evening of fun activities at home with your friends.

The key is that the reward only comes AFTER and IF you accomplish your goal. Do not pick a movie as a reward for studying if you plan to go to the movie anyway. You have to withhold rewards if you do not complete your task. For example, a punishment can be that you do NOT permit yourself to watch your favorite television program because you did not finish what you had planned.

To get started on using self-consequating, you can make two lists: one of rewards, and one of punishments. An example of what the list might look like is HERE; you may wish to use this one or create one of your own.

Self-Consequating

To get started on using self-consequating, make two lists: one of rewards and one of punishments. These should be reasonable, attainable, and they should really mean something to you. You can refer to this list (and add or delete items) when you are setting your goals.

Rewards *Things I really like to do.*	**Punishments** *Something I will not allow myself to do.*

Lesson 3: Time Management and Organization

Click for introductory video for Lesson 3.

In this lesson, you will interview the student, asking the following questions and recording the answers to complete a time use profile for further reflection and future planning. This will help them to think about their use of time. A printable copy of these questions can be found HERE.

- How much time do you spend studying or doing homework each day?
- Is this a specific amount of time, or do you work until your homework is finished?
- Do you have a specific study/work area at home? What does it look like?
- Do you study/work at about the same time every night?
- Do you get distracted from your work easily at home? What distracts you?
- How long can you study/ work at one sitting? Do you take breaks? How often and for how long?
- Are there certain days when studying is harder to fit in?
- Is there a time of year when studying is harder to fit in?
- Do you keep track of your homework assignments and projects in a notebook or on a calendar?
- If you have several things to study or work on in one night, how do you decide what to do? Do you make a plan? Do you prioritize?
- Do you know when all your deadlines are?
- What time of day is the best for you to study?
- Do you tend to leave your work until the last minute?
- Can you estimate accurately how long a particular problem/assignment/project will take to complete?

After the interview, you should arrange times for students to become involved with the following activities.

STUDENT ACTIVITY ONE: Time Management Chart
Students will need a chart with the days of the week on the horizontal axis and 24 hours on the vertical axis. This will give them a visual representation of how they spend their time. A printable example is found HERE.

DIRECTIONS FOR STUDENTS:
Record your daily activities and how much time they take, including the weekend. Use a different color for each activity (e.g. eating, sleeping, travel time to and from school, class time, extracurricular clubs/activities, homework, leisure).

Once your graph is complete, evaluate the problem areas. For example, if you have athletic practices and music lessons on the same day, that will reduce how much time you have left for homework or leisure activities on that day. Each Sunday, set up a weekly plan that fits with your school and other commitments and post the plan where you will be able to see it as a reminder.

STUDENT ACTIVITY TWO: Study Time Chart
Study time includes all academic activities, including working on homework or projects, reviewing notes, getting ready for a test, or organization and scheduling. A printable example is found HERE.

Once you have established how much time you will allot for studying or doing homework, monitor how you use this study time. Make a chart with the following columns: day and date; assignment; time started; time spent; where you are; with whom you are studying; and distractions. Keep records for a week, then evaluate your problem areas. For instance, you may spend more time on homework if you start it later or if you are studying with someone.

Your study time chart can help you analyze how you study/work best, and you can use it to decide on the changes you want to make to increase your study time efficiency. Perhaps you will want to establish a regular time to start studying or set aside a certain amount of time each night. For instance, for students in grade 6, 20-30 minutes of homework, 5 days a week is suggested. For students in grades 7 and 8, 45-60 minutes, 5-6 days a week is recommended. In addition to a reasonable and regular study schedule, you might find out from your chart that you work best in a quiet place, away from distractions like ringing phones or family activities. If this is the case, you may want to find a regular study spot in your house that is comfortable, well lit, and away from family noise. You can then save more time by permanently equipping your space with everything you will need to work with.

Do not forget to start your study time by making a list of what has to be done (in priority order) and make sure to schedule a break (no longer than 10 minutes) which is added to your study time.

Time Management and Organization

The following questions should be used during your student interviews. Their responses will be used to complete a time use profile for their further reflection and future planning. It will also help them to think about their use of time.

How much time do you spend studying or doing homework each day?

Is this a specific amount of time, or do you work until your homework is finished?

Do you have a specific study/work area at home? What does it look like?

Do you study/work at about the same time every night?

Do you get distracted from your work easily at home? What distracts you?

How long can you study/ work at one sitting? Do you take breaks? How often and for how long?

Are there certain days when studying is harder to fit in?

Is there a time of year when studying is harder to fit in?

Do you keep track of your homework assignments and projects in a notebook or on a calendar?

If you have several things to study or work on in one night, how do you decide what to do? Do you make a plan? Do you prioritize?

Do you know when all your deadlines are?

What time of day is the best for you to study?

Do you tend to leave your work until the last minute?

Can you estimate accurately how long a particular problem/assignment/project will take to complete?

Time Management Chart

DIRECTIONS: Record your daily activities and how much time they take, including the weekend. Use a different color for each activity (e.g. eating, sleeping, travel time to & from school, class time, extracurricular clubs/activities, study time, homework, leisure).

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8							
9							
10							
11							

Study Time Chart

Study time includes all academic activities, including working on homework or projects, reviewing notes, getting ready for a test, or organization, and scheduling. Once you have established how much time you will allot for studying or doing homework, monitor how you use this study time.

Day	Date	Assignment	Time Start	Time Spent	Location	Working With	Distractions

Back

Lesson 4: Study and Learning Strategies

NRC G/T

Click for introductory video for Lesson 4.

Study skills are learned abilities that help you manage the demands of school. You should practice using a variety of strategies to accommodate your different learning styles in the lifelong process of learning. Study skills should be applied to different content areas and evaluated for their effectiveness. No one method works for everyone all the time. You can work with students individually by interviewing them or by having a discussion with them about these issues.

- Organization
- Learn by Doing: Active Studying
- Note-taking

Study and Learning Strategies—Organization

Are you organized and ready to study? Do you waste time just trying to get started?

Here are some strategies to get better organized:

- Keep a homework book to record upcoming assignments, projects, tests, and events.
- Have a designated two pocket travel folder in which you label one side as "To Do" and the other as "Done." Keeping all your important notices and papers in one place saves you time.
- Create reminder checklists, one called "at school" and one "at home."
- Keep all handouts and papers in chronological order in your subject notebooks.
- Clean out your locker and bookbag on a regular basis (once a week is a good start).
- Pack your bookbag each night before you go to bed, making sure that you include all of your homework.
- At home, put your bookbag in the same place every day.

Study and Learning Strategies—Learn by Doing: Active Studying

When you study, do you just look over your notes or reread the textbook? Does your mind wander when you do this or do you fall asleep? To study more effectively, you need to be more active. When you study you should speak, write, simulate, draw, and manipulate whenever possible. Try checking off the strategies you use regularly and effectively on the list. The next time you have to learn something, try one of the unchecked strategies and evaluate its usefulness for that specific learning task.

A printable version of the Active Study Checklist can be found HERE.

Active Study checklist:

RECITE

1.____ I describe or explain the topic out loud, in my own words.
2.____ I record into a tape recorder.
3.____ I teach or explain the information to someone else.
4.____ I role play a part.
5.____ I simulate the lesson.
6.____ I recite the answers to questions on the topic that I made up myself.

WRITE

1.____ I make a chapter study review by writing key points on index cards.
2.____ I make and use flashcards for short answer questions or concepts.
3.____ I make lists of related information by categories.
4.____ I draw a diagram, map, sketch, timeline, or chart from memory, then check the book for accuracy.
5.____ I write questions I think will be on the test and recite the answers.
6.____ I create semantic maps (visual representation of ideas) to summarize the unit (webs, sequence chains, Venn diagrams).
7.____ I use mnemonics to remember information.
8.____ I rewrite class notes, rearranging the information in my own words.

VISUALIZE

1.____ I close my eyes and picture in my mind what I am trying to remember (chart, map, event, scene, experiment, character).
2.____ I try to remember where information is located on a page.

3.____ I picture in my mind how I think the test will look, based on previous similar tests.
4.____ I organize and design graphic organizers to put abstract information into concrete and visual form.
5.____ I represent concepts with symbols so I can remember them.

Active Study Checklist

RECITE

- ☐ I describe or explain the topic out loud, in my own words.
- ☐ I record into a tape recorder.
- ☐ I teach or explain the information to someone else.
- ☐ I role play a part.
- ☐ I simulate the lesson.
- ☐ I recite the answers to questions on the topic that I made up myself.

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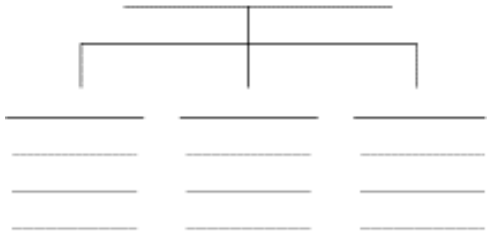
- ☐ I organize and design graphic organizers to put abstract information into concrete and visual form.
- ☐ I represent concepts with symbols so I can remember them.

Examples of Semantic Maps

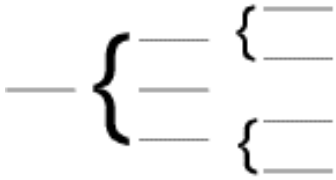
Example 1: Bubble Map

Example 2: Tree Map

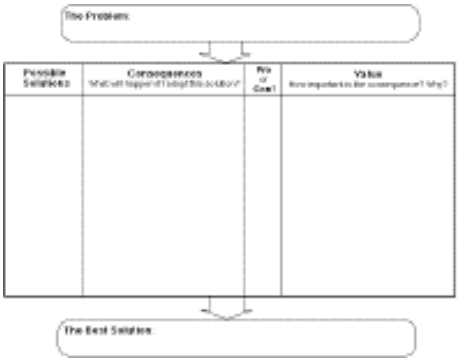


Example 3: Modified Venn

Example 4: Bracket Map



Example 5: Problem Solving Map



MNEMONICS

Mnemonics are strategies used to improve memory. They are most appropriate for memorizing lists and facts. There are a number of mnemonic strategies students may use to help them increase their memory. Four of the most common mnemonic strategies are: rhyme, acronym, abbreviation and acronym sentences.

1. Rhyme:
This is a simple mnemonic technique that most teachers have used at one time or another to help students remember information.

Example:

Thirty days hath September,
April, June, and November,
All the rest have thirty-one
Except February, which has twenty-eight.

2. Acronym:
An acronym is a word made from the first letter or first syllable of other words that one wants to remember. An acronym doesn t have to be a real word, but it must form a word that can be pronounced.

Example:

NATO — North Atlantic Treaty Organization

3. Abbreviation:
Like acronyms, this strategy uses the first letter of each word to be remembered, but these letters do not have to form a pronounceable word.

Example:

FBI — Federal Bureau of Investigation

3. Acronym Sentence:
In this strategy, sentences are made up of words that begin with the initial letter of the items to be remembered.

Example:

My (Mercury) very (Venus) earthly (Earthly) mother (Mars) just (Jupiter) served (Saturn) us (Uranus) nine (Neptune) pizzas (Pluto).

Study and Learning Strategies—Note-taking

The very act of writing something down may improve your retention of that information. Note taking also increases concentration. **Here are some tips for better note-taking:**

- write titles and headings on the page correctly
- label all notes in notebook with date, topic and page
- leave a wide margin so you can add questions, comments or new information to it later; make a wide left margin as the recall column
- skip lines between subtopics
- circle, underline, or highlight key phrases in notebook when studying
- interact with the notes soon after taking them; review them, transcribe them into a different form, recite them

To take notes from a textbook:
- use the chapter format to guide you (headings, text boxes, chapter summaries, questions). Skim the whole section before beginning your note-taking.

- write in your own words what you read
- describe a sequence of events, steps, or ideas
- list main topics and subtopics in outline form
- list details for each main idea and subtopic
- make semantic map (graphic organizer) for main ideas and subtopics
- categorize details
- write a summary for each section

To take notes from a classroom discussion:
- use the tips above

- write in your own words what is said; do not try to write down every word
- invent a personal form of shorthand of symbols and abbreviations for common words or phrases
- use arrows, stars, or asterisks to indicate most important points
- practice good listening techniques such as: look directly at the speaker, do not talk when the speaker is talking, think along with the speaker
- listen for key words such as: there are three reasons . . .; in conclusion; an important point is. . .

A printable version of the note-taking tips can be found HERE.

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The very act of writing something down may improve your retention of that information. Note taking also increases concentration. Here are some tips for better note-taking:

- Write titles and headings on the page correctly.
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- Practice good listening techniques such as: look directly at the speaker; do not talk when the speaker is talking; think along with the speaker.
- Listen for key words such as:
  There are 3 reasons . . . ; In conclusion. ; An important point is. . .

Lesson 5: Test-taking Strategies

Click for introductory video for Lesson 5.

Being well prepared for a test involves time management, high-quality note-taking, and regular reviews of material. There are 3 types of reviews that can better prepare you for test-taking: regular, weekly reviews; reviews just before the test; and posttest reviews of your test performance. Doing well on a test involves test anticipation, preparation, and analysis of performance.

Test Anticipation:

- What format will the test be? Multiple choice, short answer, essay, combination?
- How much is the test worth?
- How much time will you have to write the test?
- Are you allowed to use notes or text?
- What materials will be needed ? Calculator, ruler, pencil?
- Have you regularly reviewed the notes for the test?
- How much study time will you need? When will you study and for how long each time?
- Were previous tests similar to this one? Were there quizzes on this material?

Test Preparation:

- Spread your study time over several days and take regular short breaks
- Study difficult or "boring" subjects first
- Schedule study time during your best time of day
- Study where you'll be alert (not in bed or in easy chairs or sofas where you can get too comfortable).
- Revise class and text notes
- Concentrate on remembering the main ideas and most important information
- Ask questions of yourself; provide yourself with elaborate explanations
- Study with a partner to compare notes and test each other
- Review main topics and subtopics

Posttest Analysis:

- Did you receive the grade you expected?
- Analyze the missing answers: Were they in your notes? In your text? On

a quiz? Did you not provide enough detail?
- Analyze the type of questions: Did you perform better on a certain type of question?
- Did you have enough time to finish the test and to review your answers?

A printable version of these Test-taking Strategies can be found HERE.

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- What format will the test be? Multiple choice, short answer, essay, or a combination?
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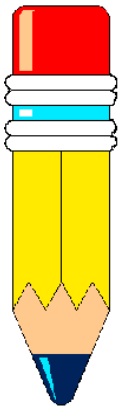
Lesson 6: Developing Your Own Plan

Click for introductory video for Lesson 6.



It is now time to consider developing your own plan for how you will be able to increase your self-regulation. It may require a combination of various strategies that have been introduced as a part of this module. Before you begin thinking about your own plan, you may want to consider the following two questions.

- What are some common self-regulation strategies that have worked well for other successful students and can help you to be successful in school if you stick with them?
- What are some *individual* skills that you must develop personally to be successful in school and life?

Look at the list below... which Self-Regulation strategies do you think will work for you? Check the strategies that you already use successfully. Try to use a new strategy each week.

Personal

Organizing and transforming information

- Outlining
- Summarizing
- Rearrangement of materials
- Highlighting
- Flashcards/ index cards
- Raw pictures, diagrams, chart
- Webs/mapping

Goal setting and planning/standard setting

- Sequencing, timing, Completing
- Time management and pacing

Keeping records and monitoring

- Note-taking
- Lists of errors made
- Record of marks
- Portfolio, keeping all drafts of assignments

Rehearsing and memorizing (written or verbal; overt or covert)

- Mnemonic devices
- Teaching someone else the material
- Making sample questions
- Using mental imagery
- Using repetition

Behavioral

Self-evaluating (checking quality or progress)

- Task analysis (What does the teacher want me to do? What do I want outof it?)
- Self-instructions; enactive feedback
- Attentiveness

Self-consequating

- Treats to motivate; self-reinforcement.
- Arrangement or imagination of punishments; delay of gratification

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Environmental

Environmental structuring

- Selecting or arranging the physical setting
- Isolating/eliminating or minimizing distractions
- Break up study periods and spread them over time

Seeking social assistance

- Ask a friend, a teacher, or another adult.
- Follow the lead of a student who is successful

Seeking information from nonsocial sources

- Go to the library, read a book or a magazine article.
- Watch a TV show or find it on the web.

- Find examples out in the real world.

Reviewing records

- Reread notes, tests, and textbooks.

A printable version of these strategies can be found HERE.

Developing Your Own Plan

It is now time to consider developing your own plan for how you will be able to increase your self-regulation. It may require a combination of various strategies that have been introduced as a part of this module. Before you begin thinking about your own plan, you may want to consider the following two questions.

1. What are some common self-regulation strategies that have worked well for other successful students and can help you to be successful in school if you stick with them?

2. What are some individual skills that you must develop personally to be successful in school and life?

Look at the list below... which Self-Regulation strategies do you think will work for you?

Personal

Organizing and transforming information

- ❑ Outlining
- ❑ Summarizing
- ❑ Rearrangement of materials
- ❑ Highlighting
- ❑ Flashcards/ index cards
- ❑ Raw pictures, diagrams, chart
- ❑ Webs/mapping

Goal setting and planning/standard setting

- ❑ Sequencing, timing, Completing
- ❑ Time management and pacing

Keeping records and monitoring

- ❑ Note-taking
- ❑ Lists of errors made
- ❑ Record of marks
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Rehearsing and memorizing (written or verbal; overt or covert)

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- ❑ Watch a TV show or find it on the web.
- ❑ Find examples out in the real world.

Reviewing records

- ❑ Reread notes, tests, and textbooks

Summary of Key Points

- Self-regulation skills can be taught, learned, and controlled.
- In order to self-regulate, students must learn to self-compare their performance and become proactive learners.
- Some gifted students manage to do very well in school for many years without good self-regulation skills because of their high ability and/or an unchallenging curriculum.
- Some students who possess good self-regulation skills may be choosing not to employ them due to personal or social issues.
- High achievers set specific, realistic, and systematic learning goals for themselves and self- monitor frequently.
- There are many self-regulation strategies. Good self-regulators use multiple individualized strategies. There is no one best strategy that will work for all students all the time. Strategies involve personal, behavioral, and environmental categories.
- Self-regulation involves controlling behavior, motivational beliefs, and cognitive strategies for learning.
- There are three phases of self-regulation: forethought or preaction, performance control, and self-reflection.
- Teachers can help students learn self-regulation by shifting the responsibility

for learning to the students, demonstrating self-regulatory techniques, and adapting a Learning Academy Model.

- Some of the important self-regulation skills for adolescents are goal-setting, self-consequating, time management and organization, study and learning strategies, and test-taking strategies.

Weekly Report Checklist

Please take a few minutes each day or two to complete this checklist, indicating which activities you did, on which days, and for how long. This report will help you self-monitor and help us collect some of the data we need. You will submit this report to your liaison.

E.g.

ACTIVITY	M	TU	W	TH	F
Interviewed student on goals		20 min.	15 min.		
Worked on setting short-term goal	15 min.		15 min.		
Explained self-consequating				20 min.	

Activity Checklist

ACTIVITY	M	TU	W	TH	F
Read entire module					
Planned logistics for lessons					
Introduced concept of short-term and long-term goals					
Interviewed student about goals					
Worked on setting short-term goal(s)					
Worked on setting long-term goal(s)					
Explained self-consequating					
Helped student complete self-consequating list					
Interviewed student about time management					
Explained Time Management Chart activity					
Discussed completed Time Management Chart					
Explained Study Time Chart activity					
Discussed Study Time Chart activity					
Discussed study organization					
Help student choose organization strategy(ies) to try					
Explained concept of active studying					
Explained specific active study strategies					
Helped student complete Active Study Checklist					
Discussed Active Study Checklist answers					
Explained concept of semantic maps					
Explained sample semantic maps and their uses					
Practiced using semantic maps					
Introduced mnemonics					
Practiced use of mnemonics					
Introduced note-taking strategies					
Examined student's notebooks, discussing better strategies					
Practiced note-taking strategies					
Introduced test-taking strategies					
Interviewed student with test anticipation questions					
Practiced test preparation strategies					
Interviewed student after a test (posttest analysis)					
Worked on developing an individualized self-regulation plan					
Met to discuss progress on individualized plan					
Met to discuss modifying individual plan					

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