

TRANSFORMING GOOD STUDENTS INTO GREAT LEARNERS ONLINE SESSION 1 SCRIPT

Welcome to the video series, Transforming Good Students into Great Learners. By watching this video series, you will learn some essential skills for college success. Most students, when arriving on the doorstep of college for the first time, have ingrained many years of study and learning approaches that have served them well throughout high school. But college is a different ball game, and here, you need to learn to play by a whole new set of rules. Before you begin you may want to pause the video and go to the Learning Center web site to print off the handouts for this session. So let's get started with this video clip.

<PLAY VIDEO: Road Bike Party>

You're probably wondering what this video has to do with learning how to become a successful student. Take a moment to think about some of the skills and characteristics that were required for the rider in the video to accomplish what he did. Pause the video for a minute and jot down 3 or 4 skills or characteristics he needed. Do you see any of the skills or characteristics that you named here? Everyone has skills and characteristics that can be transferred to different parts of their lives. The rider in the video demonstrated these skills that are also useful to students. Mental agility helps you to switch gears between different subjects. Desire and determination are important in being clear about your goals and what you want from school. Self discipline is important because it's always easy to procrastinate and do things other than school work. Persistence, patience, focus and practice are important because that's what it takes to master difficult content. Planning what and when you're going to study helps you to get it done in a timely manner. Everyone has a life outside of school, and that's where balance and coordination come in. When one approach to learning is not working well for you, creativity will help you figure out new ways of doing things. What are some other skills you have that will serve you well as a student? This first session will begin to set the stage and help you prepare for a successful experience as a college student.

Most of us have had a job. Imagine that you're an employee who has performed your duties well by your own and your supervisor's standards. In fact, you have received outstanding performance reviews from your supervisor. Additionally, your work is held in high regard by your peers. Now imagine that you take a new job in which you are essentially performing the same duties. However, these duties carry greater weight. You understand that this new job demands more time and effort, and you work with increased energy and diligence. The time arrives for your first project review. You are confident. You've invested more time and worked more conscientiously than you ever did in your previous job. However, your supervisor deems the quality of your work unacceptable. Even worse, for the first time in your life, your effort is questioned. Shocked, as you received only stellar reviews in your prior position, you meet with your supervisor to obtain insights about what went wrong and guidance concerning his expectations for the next project. You take his suggestions to heart and double down on your efforts for your next project, putting your full effort into it, coming in early, leaving late, working extra hard, perhaps at the expense of other obligations in your life. However, your work is still judged as inadequate. This cycle repeats itself until you eventually begin to experience high levels of frustration, anxiety, and inadequacy. You begin to disengage from the job because nothing that you do seems to make any difference or improve the situation. Ultimately, you divest your efforts from your work and put your energy into something that provides a greater return, such as your family or a hobby. Over time, you become the average employee your supervisor accused you of being months earlier. Finally, you get to the point where you're so tired of being miserable and feeling inadequate that you quit. Who needs that kind of grief?

Many students who enjoyed pre-college academic success enter institutions of higher learning with a high academic self-image. They believe they are excellent students and expect to earn grades that reflect their effort and are consistent with their image, similar to what they achieved in high school.

Like the employee who was unable to continue building upon his success as he transitioned to his new job, often good students are unable to make the transition from their pre-college learning environment into the college environment. They invest themselves fully in preparation for their exams, only to have their learning outcomes judged as inadequate. Their effort can also called into question, and *over time they begin to divest themselves from academics* and reinvest in other areas. At best, good students who don't receive proper academic assistance will get by but never live up to their capabilities in college; at worst – and increasingly more common – they will become retention casualties....those students who eventually decide that they're just not "cut out" for college and move on to another low skill, low paying job.

So let's explore why this happen. We'll start by answering the question, "Why do good students do bad in college?" But first, we need to understand what a good student is. Some students who enter college are what we might consider poor students. They've most likely entered college with no firm goals in mind, and for all the wrong reasons, such as their parents pushed them or their friends are going. These students lack focus, their study efforts are often interrupted by other things (if they study at all) and they're perceived as "goof offs". Even if professionals at the college try to intervene and remediate these students, they do not respond to assistance that is offered. This represents a relatively small number of students, and they tend to crash and burn after a fairly short time. On the opposite extreme are those students we'll refer to as Great Learners. These students enter college with great promise, having done exceptionally well in high school. They have a strong work ethic and a clear vision of what they want for their future, AND they know how to achieve that vision. They study hard, participate in class, complete their assignments on time, and are rewarded for their efforts with high grades, making the Dean's List each semester. These students are the "cream of the crop" and, like poor students, represent a small handful of students in each class. Then there are the good students, representing the vast majority of students. There's a good chance that you're a good student, because this represents the majority of students entering college. Good students, like great learners, performed well in high school, and probably got pretty good scores on their SAT's, they enter college with high hopes and expectations of doing well. Like great learners, they also work hard, go to class, and, on the surface, look very much like great learners. The big difference is that when they get their tests and assignments back, their results are very disappointing. They can study for a test for several hours, and receive an average grade, or worse. Why is this? Well let's find out.

Let's start with the **80/20-20/80 Rule**. This rule is the first of 3 reasons you'll learn that explains why good students do bad in college. This rule is perhaps the most important concept students must grasp about the collegiate learning environment. More importantly, once they grasp it, they must fully understand its implication in their everyday study routine. When asked to identify the main source of information in preparing for high school tests, most students quickly identify their teacher as this source. This is the 80/20 rule. This rule says that 80% of the information students need to know to be successful on their exams comes from one source: their teacher. The teacher dispensed this information via classroom lessons, then reinforces it through homework assignments and perhaps by reviewing homework assignments during class. This routine has conditioned students to view the teacher as the primary agent of test preparation. This is the main reason why students often ask professors if what they are talking about in class is going to be on the test. The conditioning process of their high school environment has trained them to believe that if they pay close attention in class, make notes on all the things that the teacher writes on the board, memorize what is handed out, and just stay on the conveyor of activities that worked for them in high school, they will earn A's in college. That is the 80%, or the majority of their learning. The other 20% consists of time the student spends reading assignments, doing homework activities, and completing a brief review a day or so before test. When these students (the ones whose efforts and capabilities have been repeatedly affirmed and rewarded by high marks and praise in high school) go on to college, they take this

approach to learning with them. In college, students must reverse the 80/20 rule and begin operating according to a 20/80 rule. This means they should consider the information the professor provides in class via lectures and study guides as roughly 20% of the content needed to be successful on exams. *The student must generate the other 80%* by synthesizing, grounding, and expounding upon the class information. This work is done outside of class. In fact there is recent researcher that has shown that as much as 85% of all college learning is done independently outside of the class and usually involves a textbook. This means to students that success in class has significantly more to do with what they do outside of class than what the instructor presents in class. What does this mean to you as a new college student? It means that the 20% the professor provides is incredibly important, BUT it is insufficient for test preparation. Unlike your high school teachers, the college professors see their role as that of a guide. Therefore, they don't expect to "spoon-feed" students information to pass tests. However, students enter college using the habits they learned in high school. They attempt to apply the no-longer-sufficient 80/20 rule. This means that they attempt to absorb 80% of knowledge out of 20% of the information. This is impossible and it is a recipe for disaster!

Prior to college, you've become accustomed to a certain **way of learning**. High school is where students solidify their learning approach and develop & engrain study habits. After all, students have invested about 16,000 hours into their educational experience by the time they enter college. Consequently, they have many deeply ingrained study habits which have served them well throughout their prior educational experience. In order to drive home the significance of the 80/20-20/80 rule, let's break it down this way. In high school, you spent about 30 hours per week in class, 6 hours, 5 days a week, for the entire school year. In college, if you're taking a full time load of 12 credits, you'll be spending about 12 hours per week in class, face-to-face with your instructor. That's 1 hour for each credit hour in which you're enrolled. What about course length? In high school you had a full school year to complete a course. But in college, courses last 1 semester, 15 weeks. That time can go by pretty quickly! How many tests did you take in each of your high school classes? Well, if you had a test each week, that would mean about 32 tests for the course. But in college, you will be taking many fewer exams (that's a good thing) but each one will comprise a much larger portion of your grade (and that could be a bad thing, because that makes it much more difficult to recover from a bombed test). How many chapters did each high school test cover? Typically, one chapter per test, and one test per chapter. In college, with fewer tests, each one will cover more material. It's not uncommon for college tests to cover 3-4 chapters, or sometimes more. Now be honest. How many hours per week did you study at home during high school? Most students who are asked this question answer 2-3 hours; many students say even less than that! Well, in college, there's a formula that says for each hour that you're in class, you should spend 2 to 3 hours outside of class studying. So for a load of 12 credits, that means 24-36 hours per week studying on your own. Add that to the 12 hours per week that you're in class, and you can see that college is your full time job! Now you can really begin to see why that 80/20-20/80 rule is so significant. So that leads us to our final comparison. Who was responsible for your learning in high school? Most will agree that it was the teacher. And who is responsible for what you learn in college? Nobody but the one you see staring back at you from the mirror each morning.

OK, so now that you understand the first reason good students do bad in college, let's move on to reason #2. This reason starts with an explanation of what happens when you study. On the first level is observable behavior, which is simply what we see when students are learning. You can look at someone and say, "Oh, I better not bother them. They're studying." You know this because you can observe them reading, writing, highlighting their textbook, or writing notes. On the next level is Cognitive Activity. This is what's going on inside your brain while you're studying, within the context of the subject that you're trying to learn. Cognitive activity is deliberately concentrating on and interacting with whatever it is that you're trying to learn. The third level is something called

Metacognitive Activity. Simply put, this means thinking about your thinking, or paying attention to what's going on at the cognitive level while you are studying. It's thinking about HOW you're thinking about the material. Metacognition is a set of questions that determine how we interact with the content we are attempting to learn. All learners have metacognitive activity. Yet researchers have shown that students who are more metacognitively aware will learn better and perform better on test than those who are not. It is differences at the metacognitive level that explains why some are only good students, while others are great learners. So keep this important idea in mind as we move along to the second reason good students do bad in college. The second reason has to do with the Study/Learning Cycle, which consists of 4 Stages. Task definition means figuring out what you will accomplish while studying. Planning and strategy selection means determining when, how long, and what method you will use. Once these two steps are completed, you actually begin to study. This is when the observable behavior and cognitive activity kick in. A certain level of thinking will be triggered by the task definition and strategy selection steps that were already completed. Your learning goal will determine how you think about the material you're learning. At the end of this phase of the cycle, you finish with a learning outcome, or something new that you've learned. This is what you bring to the assessment, whether it's a set of math problems you need to work for homework, an essay you need to write, or an exam you will take. If you're unhappy with the results, that is, the grade that you get at the end of this study cycle, you're going to adapt somewhere. Where do most students adapt? Most students will decide that they need to study longer, or need to make flashcards instead of writing notes, or highlight more of their textbook, or something like that. In other words, they will adapt at the Planning & Strategy Selection phase. In fact many students BEGIN the study/learning cycle at this phase. This is evidenced by the fact that the first thing most students seek out when they get their syllabi is the test dates. These students want to know the test dates so that they can start planning when to study. This means that many students skip right over the first phase, which is the most important phase of the Study Process. This results in students operating under a "default task definition," or at least an inadequate task definition. Often, it's the same definition used in their precollege experience. A task definition of "read the chapter" or "learn these vocabulary words" is inadequate to do well in difficult college courses. However this is the default task definition that many students use. When this occurs, an inappropriate thinking level is triggered. And the student will come out at the end of the study cycle wondering whether they've studied enough, whether they've studied the right thing, whether they're really ready to take that test. Being unsure of your learning outcomes often leads to unsatisfactory test results, and the student going back and adapting at the planning & strategy selection phase. But what really needs to happen is adapting the Task definition. The task definition-when unrecognized and unexpressed, is uncontrollable. If improper goals are embedded at the core of our learning, you WILL engage in faulty thinking and that faulty thinking will result in insufficient learning outcomes that will translate into poor test performance. This is the second reason good students do bad in college. It's because they begin with inappropriate, inadequate, or high-school level learning goals. They don't know how to formulate appropriate learning goals for college level work. So here's a key concept. Pay attention! Different learning outcomes can be reached with the same content. Becoming aware of your metacognitive activity, or how you're thinking about the material while you're learning it, will help you control your learning outcomes.

Helping students change their learning outcomes is a primary purpose of the ThinkWell-LearnWell™ Diagram, which we will focus on next. An organization known as The Foundation for Critical Thinking has a mantra, and it's this: *If we think well while studying, we learn well. If we think poorly while studying, we learn poorly.* When students want to improve their grades, they usually change their study strategy. In other words, they study longer, more intensely, or use a different technique. They don't realize that grades are a measure of our learning outcomes. Learning outcomes drive how we think about the material we are studying. Most are oblivious to how they're thinking about

the material while they are studying it. They don't change their learning outcomes and as a consequence their grades don't significantly improve. So let's take a closer look at this important tool for college success. The ThinkWell-LearnWell™ Diagram was created to enable students to measure the extent to which they have learned the material. No more hoping that you studied the right stuff, only to be disappointed on the test. Everything covered to this point is to help you understand the usefulness of the diagram. The ThinkWell-LearnWell™ Diagram helps students excel in rigorous courses. It is used by students in more than 700 colleges around the world. It helps students see the relationship between metacognitive activity (the left column), their cognitive activity (the middle column) and the outcomes of their combined metacognitive and cognitive activity (the right column). Let's take a closer look so that it will begin to make more sense.

The gradient color change from light blue on the top to darker blue at the bottom represents movement from surface learning to deep learning. Like water, the shallower level is lighter blue, and the deeper levels are darker blue. By the time students enter college, they have established learning strategies. Research shows that students typically employ one of two approaches to learning: surface or deep. Students who employ a surface approach to learning will automatically use lower-order thinking skills, while students who employ a deep approach to learning, will automatically use higher order thinking skills. It is impossible for surface learning strategies to activate high-level thinking skills.

The first column of the diagram represents The Learning Goal, or Task Definition. These terms can be used interchangeably. What this means is asking yourself what it is you need to know or be able to do at the end of studying that you didn't know or couldn't do before you started. This is the most important aspect of the learning process. If the learning goal is inaccurate or insufficient, then three things will result. One, an incorrect level of thinking will be triggered, because the metacognitive learning goal controls students' thinking level. Two, students will NOT be able to successfully assess their learning progression and sufficiency. And 3, students will experience false learning confirmations, thinking they've learned the material well. This false learning confirmation is the primary cause of good students' academic frustration. The confirmations provide them a sense of affirmation that they have indeed learned while studying, yet they perform poorly on exams. They learned, but they did not Learn Well! Again, the sequence of events that produced the poor exam grade was initially set off by the faulty metacognitive learning goal. So let's delve into this notion that different learning outcomes can be achieved with the same material. Look closely at the main headings in this column, starting at the top. The shallowest learning goal is to identify or define. The next level is to explain information, using your own words. Next, apply the information to help you solve a problem or complete a task. Next is to compare and contrast, focusing on being able to distinguish nuances among various ideas, concepts, or procedures. Next is making a judgment, or forming an opinion about an idea that you can support with evidence. Finally, at the deepest level, is to come up with a new way of looking at something or solving a problem.

A learning goal or task definition is simply a question or statement that you wish to fulfill while studying. You're not trying to answer the question just yet, you're just posting it. These prompts in the first column can be used to assist you in defining appropriate college level learning goals. Here are some examples of learning goals or task definitions related to the concept of Metacognition. The first level is to identify or define. Your learning goal can be in the form of a question or a statement. So at the most shallow level, your goal might be stated as, what is metacognition? Or Define metacognition. The next level is to explain, and can be expressed as a why question. Give it a try. One goal might be to answer the question Why is metacognition important? The next level is applying information to help you solve a problem. At this level, you might ask, what are some ways students can use metacognition to do better in school? The next level has to do with comparing and contrasting, distinguishing between ideas, noticing similarities and differences which may be subtle. At this level, your learning goal might be to answer the question, what's the difference between

cognitive & metacognitive activity? The next level is to make a judgment about what you're learning. It requires that you consider facts and evidence. You might ask, what proof is there that metacognition contributes to better grades? The final level requires that you develop a viewpoint or think about something in an original way. You might ask, "How am I going to use metacognition to be a better student? So let's say that you go to take your test, and the first question is the 4th or 5th question on this list. But when you studied about metacognition, all you did was learn the definition. You will be hard pressed to come up with a good answer, because you didn't think about the concept at the level that you needed to while you were studying. So you end up being insufficiently prepared to provide a good answer on the test. This is why it's important to make sure that you establish learning goals at all the levels before starting your study session.

Let's take a look at the middle column of the diagram. This section shows you what thinking level is triggered based on the learning goals that you articulated at the start of your study session. You'll notice that the heading says Bloom's Higher Order Thinking Skills. Benjamin Bloom was an educational psychologist who, along with colleagues, first introduced the idea that a meaningful learning experience demands that people think at different levels. Since this model was first created in 1956, it has been widely used by educators to help their students become better critical thinkers. These levels of thinking are considered a hierarchy. In other words, the shallower levels must be mastered before you can go on to the deeper levels. Let's return for a moment to our water analogy that is represented by the blue gradation in the background. When you dive into a pool of water, you must first go through the shallow/lighter water before you reach the deeper, darker blue water. Most students arrive at college pretty competent at thinking at the remembering and understanding levels, and perhaps not so adept at the deeper thinking levels. In fact, research has shown that memorization is the primary strategy used by new college students. Many high school students are unable to deal effectively with problems that require abstract thinking such as that demanded at the analyzing, evaluating, and creating levels of Bloom's taxonomy. About half of students entering college do not use these higher order thinking skills when studying. The good news is that everyone uses all the different levels of thinking at some time or another. Remember the skills and characteristics we saw the biker demonstrate earlier? We all have skills that can be transferred to other aspects of our lives. So the reason new college students struggle with doing this in school is that most have not been explicitly taught how to do this. That's where this workshop comes into play. So let's look at an example of how we use the different levels of thinking in everyday situations.

Everyone likes food, right? What's your favorite food? Take a second and think about that. Let's say your favorite food is a nice juicy hamburger. You've just accomplished the first learning goal, identification. Now, Explain why it's your favorite food. Let's say it's because when the meat is nice and juicy it runs down your fingers, and it's versatile because you can put lots of different kinds of toppings on it. Now, tell how to make it. Well, it's fun & easy to make. You buy some hamburger meat, then shape it with your hands. You can add various seasonings to the meat. You fire up the BBQ, and cook it to the level of done-ness that you prefer. Put it on a bun and add your favorite condiments. How is a hamburger different from a hot dog? Burgers are round & hot dogs are long & skinny. Burgers are tender; hot dogs can be rubbery. Burgers taste beefy, hot dogs are more salty. I like to put different toppings on each one. You can probably think of other differences, and possibly even some similarities. Now describe the best hamburger you've ever eaten. This requires you to draw on previous experience, and form an opinion. The best burger I've ever eaten was not too thin and not too fat, had just the right amount of bleu cheese, caramelized onions, and bacon on it, and was on a nice chewy bun. How can you improve on the humble hamburger? This is where you get to be creative. Perhaps by adding different toppings, using different types of meat or bread, or serving with various complementary side dishes. Or maybe just eating it with friends. In this little food exercise, we progressively went through each level of thinking in Bloom's hierarchy. With each

progressive level, we gained a deeper understanding about hamburgers, insight into the characteristics of different types of hamburgers, and got to a point where we could begin to form an opinion about what makes the best hamburgers, and we could get creative about improving upon it. If we had stopped trying to learn more about my favorite food at the remembering or understanding level, you'd have a lot less depth and breadth of mastery of the concept.

So this brings us to the final column of the ThinkWell-LearnWell™ Diagram, and that is the Learning Outcome. The outcome is what you are able to do with the knowledge you've acquired as a result of the time you've spent studying. This is what you bring to the test in the form of answers to anticipated questions, thinking processes for expected problems, and so forth. The learning outcomes will always affirm the learning goals. As you go down the column, passing from surface level into deeper level learning, you gain a more thorough understanding of the concept you're studying.

In its entirety, the ThinkWell-LearnWell™ Diagram shows the relationship between learning goals, thinking levels, and learning outcomes, as well as the relationship between surface approaches and deep approaches to learning. The important thing to understand about this relationship is that education is about transfer. Tests measure the degree to which the outcomes students attained while studying match those required by the task. This is a question of transfer.

There are two types of transfer: near and far. Near transfer is when the skills exhibited in the learning context are similar to those expected to be demonstrated in the transfer context. Far transfer is when these skills are farther apart. Research suggests that the farther the transfer, the less likely students will be able to successfully transfer their knowledge. Students tend to unknowingly and unintentionally create far transfer situations each time they study, because the intellectual skills they use while studying are much different from the ones they will need to demonstrate on their tasks. This common occurrence is one of the reasons good students' study efforts do not translate into success on tasks.

The ThinkWell-LearnWell™ Diagram was created to help students convert their far transfer study experiences into near transfer experiences. This is accomplished by helping students ensure that the ways in which they interact with material *while studying* is in sync with how they will need to interact on their assessment tasks. This type of alignment produces efficient studying and significantly improves performance. The Metacognitive Learning Goal dictates the levels of thinking students will engage in while studying and learning. The level that students think about the material when engaged in studying will determine the outcomes they reach. However, as we've learned, most students come to college focusing their study efforts on the shallow levels of remembering and understanding. Rigorous college courses require students to think deeper than this. In fact, the purpose of general education courses is to ensure that students learn to think about issues and problems in a variety of ways. That's why in college, you are expected to reach the deeper level learning outcomes. The ThinkWell-LearnWell™ Diagram demonstrates the relationship between learning goals, thinking levels, and learning outcomes. There is a horizontal movement between these aspects. If you begin with a goal to identify or define, you will think at the remembering level, and you will reach an outcome of being able to recall or duplicate information. There is very little chance that your ability to recall will lead you to being able to analyze or evaluate the concept that you've learned. In order to do that, one must make sure that they travel vertically through each level of thinking while studying, so that they will have practiced being able to perform the task that is required on the test. This is the number 3 reason that good students do bad in college. They get stuck in low level, horizontal thinking, when college courses demand deeper, vertical approaches to learning. Students who think horizontally will reach the same lower-level learning outcomes regardless of their thinking capabilities or time they invest. Vertical mobility is the key to student

learning. As students engage in higher-level thinking, they produce deeper learning outcomes. To achieve vertical mobility, students must interact with the content or subject matter differently than the ways they have in the past.

We've covered some pretty important concepts. Pause the video for a moment, and jot down the 3 most important points that you've learned in this presentation. <PAUSE> OK, let's see how you did. If you named the 3 reasons that good students do bad in college, that's an acceptable answer. Understanding these reasons will start you on your way to transforming yourself from a good student to a great learner. But identifying and explaining these reasons is really thinking at the shallow levels of remembering and understanding. To take it a step further, delve into the deeper levels of thinking. Doing that, your response might look something like this. Number 1 is still remembering and understanding, but #2 is at the analyzing level and #3 is at the evaluating level. So when you're metacognitively aware, you can think about how to access deeper thinking levels that are essential to college success.

It's always a good idea to do a quick recap at the end of a session of learning, so let's do just that. The ThinkWell-LearnWell™ Diagram is valuable to students because it enables them to both guide and gauge their learning. It *guides* learning by helping students create appropriate learning goals at deeper levels of thinking. This leads to outcomes that can be used to *gauge* your learning and evaluate whether what you've learned is in line with what your professor will expect on test day. The columns represent your learning goals, levels of thinking, and (when you put those 2 things together) your learning outcome. Remember that the most significant difference between novice learners and expert learners is their mode of inquiry. Good students live in the shallow water. Great learners live in the deeper water. As long as we're using this water analogy, think about going to the beach. What can you observe and learn about the ocean by wading along the edge of the surf? Now strap on some SCUBA gear, and dive beneath the surface. What new perspectives and concepts can you learn from this vantage point?

Now that you understand the difference between good students and great learners, and the reasons good students do bad in college, it's time to start learning how to put these principles into practice. Part 2 of this series will do just that, by showing you how to employ a technique called Textbook Mapping to ensure that you're studying the right things, and employing appropriate thinking levels, in order to achieve the outcomes that you will need to do well on the test and demonstrate that you're more than just a good student, you're a Great Learner.