

TEACHING FOR STUDENT SUCCESS

WHO WE ARE

Here at Delta State, we care about our students' success. We want our students, yes, to graduate on time, but with the knowledge, skills, attitudes, and behaviors to be proactive, adaptive, and productive.

For many of our students, this goal is no easy feat. The University services the poorest region in the nation's poorest state. In 2016, Mississippi ranked third-to-last in public-school funding—at \$8,702 per student, roughly \$3,000 below the national average (“Education Spending,” 2018).

WE WANT OUR STUDENTS, YES, TO GRADUATE ON TIME, BUT WITH THE KNOWLEDGE, SKILLS, ATTITUDES, AND BEHAVIORS TO BE PROACTIVE, ADAPTIVE, AND PRODUCTIVE. FOR MANY OF OUR STUDENTS, THIS GOAL IS NO EASY FEAT.

K-12 students in the Mississippi Delta experience even greater disadvantages. Both state and local taxes fund public education, but unlike the rest of the state, the Delta has suffered a significant population decline that has shrunk its local tax revenue (Anthony et al., 2017, pp. 25-27). Delta schools currently face critical teacher shortages, most acutely in schools with predominantly African-

American students (ibid). At nearby West Bolivar High School, uncertified faculty taught almost 70% of the courses during the 2016-17 academic year (Davis & Wright, 2019). Anecdotally, some DSU students have reported their having had no high-school English teachers, only substitutes.

At DSU, these students share the classroom with others from more privileged backgrounds. During the 2016-17 academic year, total enrollment included 21% first-generation college students and 35% African-American students. Of our 3,037 undergraduates, 38% were Pell recipients. We have students from all 50 states. We have students from 50 different countries. We have McNair Scholars.

Our students come to us with wildly diverse experiences and radically different background knowledge and skills. This diversity supports rich cross-cultural engagements and fosters a unique and rewarding campus community.

It also provides distinct teaching challenges. In 2017, Delta State had a 67% fall-to-fall retention rate of first-time, full-time degree-seeking freshmen. Our six-year graduation rate hovers at 38%.

This teaching pamphlet is designed to help. Its four sections tackle the topics of “Rethinking the Coverage Model,” “Differentiated Instruction,” “Metacognitive Strategies,” and “Writing-Enhanced

Courses.” For more quick teaching insights, please see the handouts and other resources on the Gertrude C. Ford Center for Teaching and Learning website: [http://www.deltastate.edu/academic-](http://www.deltastate.edu/academic-affairs/center-teaching-learning/)

[affairs/center-teaching-learning/](http://www.deltastate.edu/academic-affairs/center-teaching-learning/). To schedule an individual teaching consultation, contact Dr. Gray Kane at gkane@deltastate.edu.

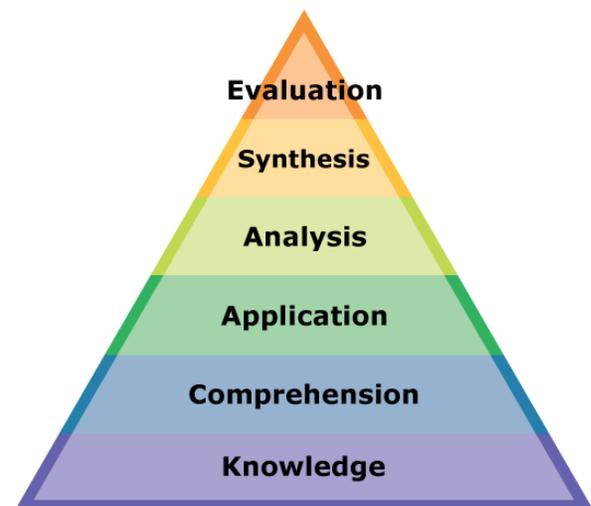
RETHINKING THE COVERAGE MODEL

Lecture-based disciplines face ongoing debate. Students have to memorize a lot of facts or develop complex understandings for their future courses or professions. Yet, coverage does not equate with comprehension. Just because we covered something, doesn’t mean the students learned it.

Truth is, the lecture-based coverage model benefits primarily high achievers with strong study skills. Those students often come from families or schools that not only teach study skills, but also model and engage higher-order thinking. First-generation college students, however, can lack familial or community role models for the attitudes or behaviors that lead to academic success (Dennis et al., 2005). Even gifted students with poor study skills—like those who never had to study in high school or have stigmatized the process of seeking help—struggle in high-content lecture environments. Nevertheless, the content has to be covered. The big question is, How? And how do we want our students to use that content?

Consider the cognitive domain in Bloom’s taxonomy of educational objectives (IMAGE 1). Educators often depict the taxonomy as a pyramid because each mental operation on the pyramid also requires the ones beneath it. Before you can apply knowledge, you first have to recall and comprehend it. In order to analyze—which means divide a whole into its component parts and relate the parts to each other and the whole—you have to recall, comprehend, and be able to apply. Before you can

synthesize—or, combine two or more items in order to create something new—you have to recall, comprehend, apply, and analyze. And so on, up to evaluation.



[IMAGE 1: Bloom’s Taxonomy (Hakky, 2016)]

Lectures help with comprehension, but contribute little to those higher-order thinking skills.

Further complicating the college classroom, most students reduce learning to memorization. Few realize that different mental operations exist—let alone know how to perform them.

Lectures alone fall short in helping with application or critical thinking, but they also fluster students who want to recall the content. From the perspective of someone searching for what to memorize,

lectures and most reading assignments sound or look like nebulous clouds of information. Such students might not take notes, because they don't know what specifically to record for later memorization. Some of those students then ask the dreaded question, "What do we have to know for the test?"—because they're struggling to identify the substance to memorize in those nebulous clouds.

Professor: "Any questions?" Students: SILENCE.

Many faculty then wonder, Why do so few students ask questions, even when prompted? Unfortunately, people don't recognize gaps in their understanding until they attempt to use knowledge. High-performing students ask questions during lecture because they connect ideas, build scenarios, or otherwise contextualize the content while listening. They virtually apply or relate the material enough to identify at least initial gaps or discrepancies in their understanding. Most students don't do that, don't know to do that, and don't know how to do that. Without structured opportunities to apply or relate new knowledge, they don't know what they don't know enough to ask questions.

Worse yet, when you ask if they understand, they might say yes. Some students defend their identities by hiding their lack of understanding, but far more commonly, their "yes" answers a different question. You're asking if they understand the content; they're responding that, yes, they understand the language you used to communicate it—and they're unable to recognize the difference between the two.

Lectures peppered with Q&A's can improve comprehension for high achievers with strong study skills, but even those students can struggle due to the limitations of human attention. Think of the last conference you attended. Unlike your students, you

have multiple degrees and a thoroughly developed attention span. How often during conference presentations did your mind fade in and out of attention? So why should we expect more from our students?

Lectures alone contribute little to the development of memory, application, or higher-order thinking skills. Few students can determine from lectures which questions to ask. Students can confuse comprehension of the content with their understanding of the way you expressed it. Even the most motivated high achievers lose focus in intervals throughout a lecture.

Nevertheless, the content has to be covered—sometimes for accreditation purposes. So where does that leave us?

Thankfully, learning-centered strategies can help with each of these limitations. For instance, to focus students' attention, some faculty organize lectures into 10-15 minute topics with clear introductions and conclusions that clarify what students will learn or should have learned, with an additional overarching introduction and conclusion to the class period or learning module.

To encourage students to ask questions, some faculty provide students with short (one-to-six-minute) structured opportunities to reflect, before opening the classroom or module to a Q&A or discussion. One method involves having students write in their own words whatever they learned from a lecture segment and then discuss what they learned with their neighbors. Another involves, prior to the lecture, assigning the students questions they should be able to answer as a result of the lecture, and then incorporating into the presentation or module opportunities for students to write or discuss their answers.

The key is to structurally encourage 100% participation. Merely asking students to discuss can enable them to defer responsibility for thinking to their more vocal classmates, or worse, lead to awkward silence. Prior to discussion, having students perform a task like writing or completing a quiz not only guarantees 100% participation—at least, in the solitary reflection activity—but also can stimulate students’ curiosity and improve their likelihood of sharing their thinking. In short, it provides students with something to say and gives them a stake in what others say.

The task also can help students recognize gaps in their understanding, which can lead to a fairer assessment of their own learning and encourage them to ask questions or otherwise seek help.

Of course, questions and activities do not have to target only knowledge or understanding. They can require students to apply, analyze, synthesize, or evaluate. Note, though, that most students do not know the meaning of these terms or how to perform those operations without definitions, instructions, models, or clarifying discussions.

Also, higher-order thinking demands more time. To liberate time in a face-to-face classroom, many faculty move some lecture content online. The general recommendation for moving face-to-face content online is to relegate solitary learning

activities—for instance, answering reading quizzes or watching short video lectures—to the online environment, while preserving the face-to-face environment for activities that might benefit from peer or instructor feedback. In other words, faculty try to reserve the classroom for learning activities that involve others.

Note: If you choose to incorporate online content in a face-to-face course, remember to acclimate the students to the hybrid format, with routine electronic and face-to-face reminders of their online responsibilities and deadlines. Otherwise, many will forget which of their courses have online requirements, or they will fail to develop the habit of checking Canvas to see what’s due.

The content has to be covered. But thinking primarily in terms of coverage puts many students at risk. Too many students come from families or schools that did not teach study skills or significantly engage their higher-order thinking. Meanwhile, course design and delivery can structurally encourage the same mental operations that high performers execute on their own.

Course logistics can shrink many gaps in student performance. As soon as we start thinking about logistics and structurally encouraging positive learning behaviors, we start walking the path towards improving student success.

DIFFERENTIATED INSTRUCTION

One logistical problem faculty face is different levels of student preparedness. To a certain extent, routine reading quizzes—not pop quizzes, which enable students to take their chances with not doing the reading—can improve the likelihood of student preparedness. But student preparedness extends beyond a single night’s reading. Many students come

from disadvantaged backgrounds, like schools with critical teacher shortages. Some students do not have the background knowledge, skills, attitudes, or behaviors to be successful in a course that lacks the scaffolding to support them. They would benefit from a course design that meets them where they are, in order to help them reach where they need to be.

To accommodate students' diverse learning needs, a growing number of faculty differentiate their instruction. For instance, faculty can create choices for activities at three different levels. Perhaps at bare minimum, students need to remember course concepts, articulate them, and explain their causes, contexts, or consequences. The next level of competency might require students to apply concepts. For the third level, perhaps students have to analyze, synthesize, or evaluate concepts. Differentiation means everyone has to meet the student-learning outcomes, but students can self-select or test into activities that match their individual level of preparedness—whether those activities be discussions centered on a set of reflection questions, or more-extensive group projects. The faculty member then can circulate the room or otherwise facilitate the activity knowing which individuals or groups to remediate and which to challenge with follow-up questions.

The goal isn't to confine students to levels, but rather to meet the students where they are, in order to help them develop where they need to be. Differentiation asks faculty to think about whether the learning or assessment tool meets students where they are or privileges students with more fortuitous backgrounds.

Different student needs can lead to different approaches. In order to accommodate students' diverse readiness, strengths, or interests, faculty can differentiate the activity, how students demonstrate competency, or even representations of the content (examples, scenarios, etc.) (Sousa & Tomlinson, 2018, p. 13).

If an assignment's learning objectives include the improvement of writing skills, then requiring students to demonstrate competency through writing develops the students. Otherwise, mandating that students demonstrate competency solely

through writing handicaps students with writing deficiencies. The very means of demonstrating competency can become a barrier to the students' demonstrating competency.

THE GOAL ISN'T TO CONFINE STUDENTS ..., BUT RATHER TO MEET THE STUDENTS WHERE THEY ARE, IN ORDER TO HELP THEM DEVELOP WHERE THEY NEED TO BE.

Differentiation asks faculty to think about whether the activity or assessment tool supports or can compete with the assignment's learning objectives. If the means of demonstrating competency can compete, then faculty can provide the students with choices: an essay, poster presentation, speech, video, etc.

Similarly, the analogies, examples, or other types of representations we use can galvanize, distract, or befuddle students, sometimes all three in the same classroom with the same activity. Helping students personalize course content by encouraging them to associate it with what they already know or experience improves their abilities to remember it, especially if they lack the background knowledge to otherwise connect it to. It also can motivate a student. A baseball fan might enjoy learning statistics through the topic of baseball. However, the same topic can distract or even confuse other students. Many faculty circumvent this problem by surveying student interests and providing students with choices.

Differentiation asks faculty to think about whether the activity or assessment tool meets students where they are in their learning process, supports or can compete with learning objectives, and engages or distracts students—and to recognize that the answer

to those questions won't be uniform. Students have different readiness, strengths, and interests. The essence of accommodating students with different background knowledge, skills, attitudes, or

behaviors is getting to know our students, either through assessments or extensive conversations. And most importantly, empowering them with choices.

METACOGNITIVE STRATEGIES

The term “metacognition” generally refers to the act of *thinking about thinking*. Developmental-psychologist John H. Flavell (1976) coined the term to signify “the active monitoring and consequent regulation and orchestration of [information processing] ...” (p.232). The literature on metacognition focused predominantly on its types and impact, until educational-psychologist Paul R. Pintrich (2002) called for the teaching of metacognitive learning strategies to students.

The results from subsequent studies have been promising. For example, in a study of almost 700 first-year science majors at Louisiana State University (LSU), students who attended a 50-minute lecture on learning strategies earned a 10%-higher final grade in general chemistry than did their counterparts, despite the lack of statistical difference in their performance on the first test (Cook et al., 2013, p. 961).

In that study, faculty taught students about the study cycle of previewing before class, participating in class, reviewing after class, studying the same content over multiple days and weeks, and self-assessing one's learning (Cook, et al., 2013, p. 963). Faculty also taught the students about Bloom's taxonomy and the importance of studying with higher-order thinking skills (p. 962).

But other strategies exist. One strategy is problem-posing. Problem-posing encourages students to think about problems or scenarios as being

intellectually malleable. Consider the following problem-posing tasks:

- Modifying a statement's idea by creating analogies, paraphrasing, changing its data, or generalizing principles from it;
- Asking “What if” or “What if not” about each component of a problem or scenario;
- Actively classifying and associating content;
- Asking whether they had seen similar ideas before, about the importance of each idea, if enough information exists to solve a particular problem, or if they could use the information differently; or
- Generating similar problems on one's own (Ghasempour et al., 2012, p. 55).

Faculty can assign relevant problem-posing tasks to various parts of assignments or teach the strategy to students as a study method.

Metacognitive strategies exist for reading, as well. Students who read solely in order to complete the assignment retain very little from the activity, even if they thought they understood while reading. As a student told Sandra Yancy McGuire (2015), professor emerita of chemistry and director emerita of the Center for Academic Success at LSU, “I do the reading, but when I get to the test I don't really remember it. I know that I've read it, but I don't remember it when it counts, so I know I'm not really getting a lot out of my reading” (p. 45). McGuire explains this phenomenon as follows:

... [You] begin reading and all is well until your mind starts to wander. But your brain

doesn't immediately realize that it is no longer paying attention because your eyes are still tracking the text. Plus, if you're a subvocalizer like I am, you can hear the words as you read, even though you're thinking about something entirely unrelated (pp. 45-46).

McGuire argues we need a reason to read, and the desire merely to complete the task does not focus the brain on comprehension (p. 47).

Without instruction or prompts, students generally lack awareness that they can intentionally employ different interpretive modes to alter their comprehension: experiencing to feel an impact; skimming for general awareness; scanning for specific information; reading to understand context, causes, or consequences; relating passages to each other and the whole text; relating the text or its content to other texts or content; evaluating the text or its content according to set criteria; reading one's own work from the vantage point of how audiences with different knowledge or experiences might misinterpret or fail to comprehend Faculty can teach students why and how to read various types of primary or secondary sources—and what the act of

reading means in different contexts within the discipline.

Alternatively, faculty can teach what the literature calls Transactional Strategies Instruction (TSI). TSI works best with assigned questions that students have to answer at designated passages or pages in the reading. Faculty would design the questions to encourage students' ...

... predicting [what will happen next in the text], altering expectations as [the] text unfolds, generating questions and interpretations, visualizing [ideas from the text], summarizing, and attending selectively to important information (McKeown and Beck, 2009, p. 10).

Because the students have to write their answers during the reading experience, this strategy works well with online discussions, even in a face-to-face course.

Structurally requiring students to think about their thoughts or teaching them the strategies to do so can empower them in their learning. It also leads to a greater likelihood of their success in the course, in the major, and beyond.

WRITING-ENHANCED COURSES

Writing-enhanced courses provide students with an opportunity to develop their skills for writing in the discipline. Per Academic Council (August 10, 2017), “the assessment of writing skills in these ... courses should count for at least 20 percent of the final grade.” In other words, 20% of the final grade comes not from the writing's content, but rather from an assessment of the writing *as writing*.

Disciplinary values play an essential role in the estimation of writing. According to Neal Lerner

(2016), professor of English at Northeastern University, “... [Disciplines] assign [value] to particular kinds of evidence, particular forms of argument, and particular expectations” for written communication (p. 41). To what extent does the discipline prioritize quantitative data, qualitative data, confirmation from secondary sources, theory, or sound reasoning? Does the discipline rely on templates, or do authors have more leeway or responsibility in the creation of its literature? Which

key terms or phrases do professionals expect from a knowledgeable member of the profession?

Writing depends on disciplinary values in other ways, too. A discipline's citation method emphasizes the importance of using current sources or returning to the primary source (Lerner, 2016, p. 41). Where in-text citations provide the date of publication in CSE, parenthetical documentation displays the page number in MLA.

Even the introduction of sources—for instance, with signal phrases that communicate authors' titles—tells us how the discipline constructs authority. Does information speak for itself, or can the scholar's name or title improve or undermine its credibility?

Similarly, a disciplinary need for objectivity can lead to an insistence on no first-person constructions—and a strong tolerance of passive voice that obfuscates who does what in a sentence.

Grammatical norms communicate values, too. A period outside the closing quotation mark speaks to a more global and once British scholarship (Yagoda, 2017, p. 4). The Oxford or serial comma in lists betrays a need for consistency in rules, like the consistency that benefits the teaching of new writers.

The greater body of scholarship sends other disciplinary messages. On the one hand, a preponderance of multi-author articles signals a disciplinary need or preference for collaboration. On the other, its dearth broadcasts an insistence on independent thinking.

Students cannot adequately learn such disciplinary norms or values without examples to model, instructional attention to key features, discussions about the significance of those features, analyses of the strengths and weaknesses in examples, or feedback on drafts.

Note that not all feedback has to come from the instructor. Peer feedback significantly improves student learning. Unlike instructor feedback, peer feedback is rarely one-sided. It often becomes a collaborative problem-solving venture (Liu and Carless, 2006, p. 281). Providing feedback on classmates' work also builds students' capacities for self-assessment (*ibid.*). It helps them recognize and think through key features in relation to the rubric.

For example categories in a writing rubric or other resources, please visit the Gertrude C. Ford Center for Teaching and Learning website at <http://www.deltastate.edu/academic-affairs/center-teaching-learning/>.

A NOTE ABOUT PATIENCE

Implementing new ideas and improving student success takes time. Often, teaching ideas fail not because they are bad ideas, but rather due to some nuance in the implementation. Many faculty do not have time, and the process can seem daunting, if not impossible. Many faculty also fear the ramifications on their student evaluations.

Start small. Big successful changes happen a little at a time. Focus on one new teaching idea until you get it right, before moving onto the next. That strategy will protect your time. It can save your evaluations. Sustainable success involves trial and error, but most of all, it requires patience.

REFERENCES

- Anthony, K.V., Franz, D., and Brenner, D. (2017). Understanding the Nature of the Teacher Shortage in Mississippi. *The Mississippi Economic Review*, 1, 24-31. Retrieved from http://www.mississippi.edu/urc/downloads/mer_volume1.pdf.
- Cook, E., Kennedy, E., and McGuire, S.Y. (2013). Effect of Teaching Metacognitive Learning Strategies on Performance in General Education Courses. *Journal of Chemical Education*, 90, 961-967. Retrieved from <https://pubs.acs.org/doi/pdf/10.1021/ed300686h?rand=3ha1i33s>.
- Davis, K. and Wright, A. (2019, February 18). After Years of Inaction, Delta Teacher Shortage Reaches 'Crisis' Levels: Districts Scrambling for Staff Put Uncertified Teachers in Classrooms. *The Hechinger Report*. Retrieved from <https://hechingerreport.org/after-years-of-inaction-delta-teacher-shortage-reaches-crisis-levels/>.
- Dennis, J.M., Phinney, J.S., and Chuateco, L.I. (2005). The Role of Motivation, Parental Support, and Peer Support in the Academic Success of Ethnic Minority First-Generation College Students. *Journal of College Student Development*, 46 (3), 223-236. Retrieved from <https://www.iwu.edu/first-generation/Dennis.pdf>.
- Education Spending Per Student by State. (2018, June 1). Retrieved from <https://www.governing.com/gov-data/education-data/state-education-spending-per-pupil-data.html>.
- Flavell, J. H. (1976). Metacognitive Aspects of Problem Solving. L. B. Resnick (Ed.). *The Nature of Intelligence*, 231-236. Hillsdale, NJ: Lawrence Erlbaum.
- Ghasempour, Z., Bakar, M.N., and Jahanshahloo, G.R. (2013). Innovation in Teaching and Learning through Problem Posing Tasks and Metacognitive Strategies. *International Journal of Pedagogical Innovations*, 1(1), 53-62. Retrieved from <https://journal.uob.edu.bh/bitstream/handle/123456789/3186/IJPI010108.pdf?sequence=1&isAllowed=y>.
- Hakky, R. (2016, November). Original Version of Bloom's Taxonomy Pyramid. Retrieved from https://www.researchgate.net/figure/Original-version-of-Blooms-Taxonomy-Pyramid-Retrieved-16-4-2016-from_fig1_311332621.
- Lerner, N. (2016). Writing Is a Way of Enacting Disciplinarity. *Naming What We Know: Threshold Concepts of Writing Studies, Classroom Edition*, 40-41. Boulder, CO: University Press of Colorado.
- Liu, N.F. and Carless D. (2006). Peer Feedback: The Learning Element of Peer Assessment. *Teaching in Higher Education*, 11(3): 279-90.
- McGuire, S.Y. and McGuire, S. (2015). *Teach Students How to Learn: Strategies You Can Incorporate into Any Course to Improve Student Metacognition, Study Skills, and Motivation*. Sterling, VA: Stylus Publishing, LLC.
- McKeown, M.G. and Beck, I.L. (2009). The Role of Metacognition in Understanding and Supporting Reading Comprehension. D.J. Hacker, J. Dunlosky, and A.C. Graesser (Eds.), *Handbook of Metacognition in Education* (pp 7-25). New York, NY: Routledge. Retrieved from https://zodml.org/sites/default/files/%5BDouglas_J._Hacker,_John_Dunlosky,_Arthur_C._Graes_0.pdf
- Pintrich, P. R. (2002). The Role of Metacognitive Knowledge in Learning, Teaching, and Assessment. *Theory into Practice*, 41(4), 219-25.
- Sousa, D. and Tomlinson, C.A. (2018). *Differentiation and the Brain: How Neuroscience Supports the Learner-Friendly Classroom*. Bloomington, IN: Solution Tree Press.
- Yagoda, B. (2017). The 'Au Revoir' Problem: It Can Be Disastrous to Rely on Only Your Instincts When Writing. *Focus: 24 Tips for Teaching Writing*. Washington, D.C.: Chronicle of Higher Education.