

INTEGRATING THE THREE M'S INTO YOUR WORK WITH STUDENTS

Video: [Click here](#)

PPT Slides: Attached, page 3.

Video Script:

Hi everyone, I'm Jessie Bowden. A PhD student and graduate assistant for Learning at Iowa. I want to talk today about integrating mindset, metacognition, and memory into your work with students.

For **Mindset**, we really want students to start thinking about their own mindset: the set of assumptions, beliefs, and attitudes that they hold. In our conversations with students, we want to promote a growth mindset in them, that they believe that their abilities and intelligence can be changed and improved. That through practice and through learning they're able to attain any skill or knowledge that they may want.

One way to do this is to utilize the power of the word yet. If we say that we don't know something yet. We start to focus our attention on *how* we learn something and get more confident and persistent. And we can help students change their mindset by getting them to talk to themselves in future-focused ways. I haven't learned this...yet. I don't understand this...yet. In addition to this, we can also ask them to take a [free mindset assessment](#) that will let them know whether they currently have a fixed mindset, a growth mindset, or somewhere in the middle. And this can get them to start reflecting on how they view their own abilities and intelligence.

For **Metacognition**, we want students to start working on self-reflection. Metacognition is thinking about your own thinking. We want to ask students to reflect on *how* they are learning. What specifically are they doing when studying? A lot of students like to quantify their studying saying, I studied four hours for this exam, five for the next. But we really want students to start reflecting and analyzing *how* they are studying. What specific strategies are they using? What's working, what's not working?

One great way to encourage students to incorporate metacognition into their studying, is to ask them to create a metacognitive journal. This is a daily reflection on their planning, monitoring, and evaluating throughout their learning. There are a lot of things we can ask them to think about for each of these components. For planning, we might ask them: Why don't you just list out when you are going to work on all your assignments and when you're going to study for the week. How long is each going to take? We may also ask them to set goals for different study sessions. For example, they might want to reach chapter 1 and get all of the main ideas from that in one study session.

Then, while they are studying, we want them to start monitoring their learning. What are they confused on? Do they need to take advantage of different supports available, like office hours or supplemental instructions? And then after their learning, after their study session, we want them to evaluate it. Asking themselves, did they accomplish their goal? Did they actually read all of chapter 1 and do they know all of the main points? Also asking themselves what worked well and what did not work? These are just a sample of all the different questions we can ask students to start thinking about during their learning.

For our last M of **Memory**, we want students to think about memory and their own learning. Students often

overestimate how well they know the material. They often can recognize a term but don't actually understand the material well enough to apply it into a novel situation. They can recognize the definition, but when there's a different type of test question on it, they suddenly realize that they didn't actually understand the concept. This often occurs because many students rely on ineffective study strategies. A lot of them report that they're just re-reading their notes when studying. And this is just familiarizing themselves with the terms and not truly comprehending what is happening in the material. Another poor study strategy is massed practice or cramming. Spending several hours in one massed study practice. Not only is this incredibly stressful, it's also not very effective. We see that students lose most of that information a day or two later.

So what we can do is try to encourage students to engage in effective study strategies, instead of these ineffective ones. Two of the most effective study strategies are spaced practice and self-testing. Spaced practice is where a student will study smaller amounts over the course of several study sessions. It's the case that memories fade quickly after studying, so when we space out our studying this allows us to retain more information by strengthening our memories. Instead of having one huge study session, we can learn and retain a lot more by breaking those into shorter study sessions over the course of several days. Another study strategy is self-testing. Asking students to start testing themselves over their own material. This could be through flashcards, quizlet, or practice tests. We want them to actually recall that information instead of just trying to recognize it. Waiting to flip that flashcard over and forcing themselves to recall the information is a lot more difficult, allows for retrieval practice, and strengthens their memory. They'll have a better memory of that when it come time to take the test than if they had simply read over it.

Thank you for listening and please feel free to reach out if you have any questions.

IOWA

Integrating Mindset, Metacognition, & Memory into work with Students

Jessie Bowden

Science Ed PhD Candidate and Graduate Assistant for Learning@iowa

1

Mindset

→ Set of assumptions, attitudes, and beliefs you hold

→ Promoting a Growth Mindset

- Belief that your abilities and intelligence can be changed and improved
- The Power of the word "Yet"

→ Mindset assessment

- <https://blog.mindsetworks.com/what-s-my-mindset>

IOWA

2

Metacognition

→ Thinking about thinking

→ Have students reflect on their learning

- Think about how they are learning
- What specifically are you doing when studying?

→ Metacognitive Journal

- Daily reflection on their Planning, Monitoring, and Evaluating

IOWA

3

Metacognitive Journal

→ Planning

- List out when you will work on assignments and study for the week
- What are your goals for this study session?

→ Monitoring

- What are you confused on?
- Are you taking advantage of supports available?

→ Evaluating

- Did you accomplish your goal?
- What worked well and what did not work?

IOWA

4

Memory

→ Students often overestimate how well they know the material

- Can recognize familiar terms but do not understand the material well enough to apply it in novel situations (e.g. - new test questions)

→ Many students rely on ineffective studying strategies

- Re-reading their notes
- Massed practice (cramming)

→ Encourage effective study strategies

IOWA

5

Effective Study Strategies

→ Spaced Practice

- Studying smaller amounts over the course of several study sessions
- Memories fade quickly after studying
- Spacing out studying allows you to retain more information by strengthening your memories

→ Self-Testing

- Testing yourself over the material
 - E.g. - Flashcards, Quizlet, Practice tests
- Relies on recall instead of recognition
- Recall is more difficult and allows for retrieval practice

IOWA

6



7