Metacognition and Mindfulness: Promoting Self-Awareness, Focus, and Calm in First-Year Classrooms

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Today's Objectives

—

Session participants will be able to...

Identify ways to incorporate metacognition, mindfulness, and meditation in the classroom

Consider how the use of these reflective practices might influence student success and overall wellbeing

Practice metacognition and mindfulness through activities

Activity #1

We ask two or three brave individuals to volunteer for an activity without knowing what we will ask you to do.

Activity #1

Please sing the first few lines of the National Anthem:

O say can you see,
by the dawn's early light
what so proudly we hailed
at the twilight's last gleaming

Activity #1 - Reflection

1. What feelings did you experience when asked to sing?

2. Did you notice any physical changes in your body (increased heart rate, sweating, etc.)?

3. What were you thinking while doing this activity?

4. What were you telling yourself?

Activity #1 - Application

- Perhaps your thoughts and feelings resemble those your students experience when entering your classroom.

- We sometimes assign students new, challenging, and uncomfortable tasks.

- Thus, feelings of fear, anxiety, or negativity may grow inside of our students and impact the way they approach these tasks.

What is Metacognition?

Jennifer Livingston, of the State University of New York at Buffalo, describes Metacognition as "a higher order of thinking, which involves active control over the cognitive processes engaged in learning."

She continues that, "activities such as planning how to approach a given learning task, monitoring comprehension, and evaluating progress toward the completion of a task are metacognitive in nature."

"Because metacognition plays a critical role in successful learning, it is important to study metacognitive activity and development to determine how students can be taught to better apply their cognitive resources through metacognitive control" (US Dept. of Education, 2003).

What Does Metacognition Have to Do With First-Year Courses?

Many first-year students struggle with...

- retaining information
- engaging in good study habits
- critical thinking
- problem solving
- transfer of learning
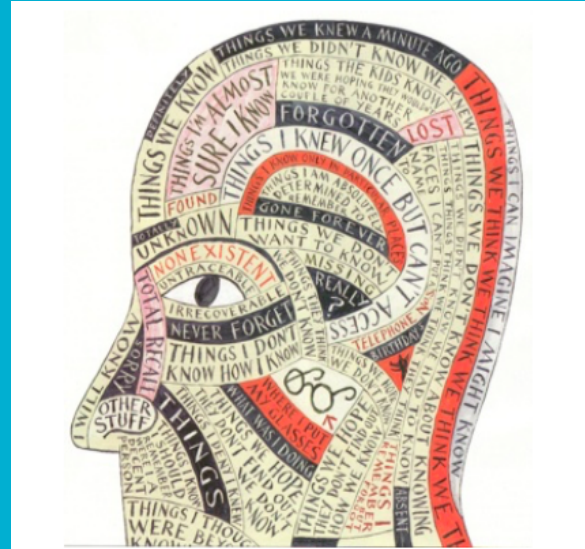
Students have learned how to become "good at doing school."

We need to get them actively engaged in the way they think and learn

(Dr. Derek Cabrera; *How Thinking Works*, 2011)

How We Can Use Metacognition in Our Classes

When students hear the definition of metacognition…

Students need to be able to "digest" this information in a way that is easy to understand.

- Introduce the concept of mindfulness.
- We cannot focus on an assignment if our thoughts are all over the place.
- This is the first step of metacognition: basic awareness.
- I use the example of how I clean; illustrate that it is a continual learning process

BUT... how can we be mindful of the way our minds work

if we don't know our minds?
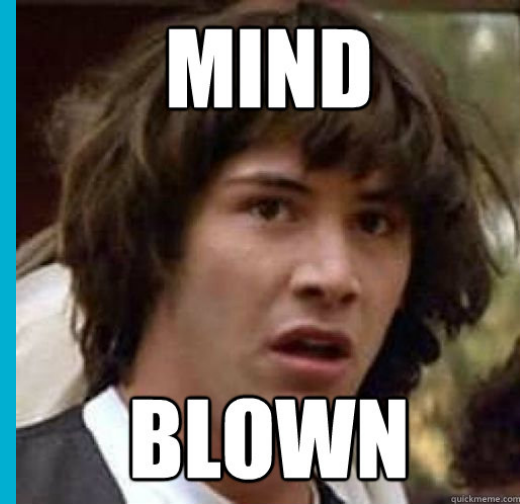
Introduce Learning Styles and Strategies

The first step is to have students identify their preferred learning styles.

- How do I learn best?

- Do I learn in a variety of ways?

- What strategies can I use to ensure I retain information?

- When have I struggled in the past, and why?

Then they can begin to draw connections to metacognition.

(Felder & Soloman, NCSU, 2011)

LEARNING STYLES AND STRATEGIES

Richard M. Felder & Barbara A. Soloman, North Carolina State University

ACTIVE AND REFLECTIVE LEARNERS
- Active learners tend to retain and understand information best by doing something active with it—discussing or applying it or explaining it to others. Reflective learners prefer to think about it quietly first.
- "Let's try it out and see how it works" is an active learner's phrase; "Let's think it through first" is the reflective learner's response.
- Active learners tend to like group work more than reflective learners, who prefer working alone.
- Sitting through lectures without getting to do anything physical but take notes is hard for both learning types, but particularly hard for active learners.

Everybody is active sometimes and reflective sometimes. Your preference for one category or the other may be strong, moderate, or mild. A balance of the two is desirable. If you always act before reflecting you can jump into things prematurely and get into trouble, while if you spend too much time reflecting you may never get anything done.

How can active learners help themselves?
If you are an active learner in a class that allows little or no class time for discussion or problem-solving activities, you should try to compensate for these lacks when you study. Study in a group in which the members take turns explaining different topics to each other. Work with others to guess what you will be asked on the next test and figure out how you will answer. You will always retain information better if you find ways to do something with it.

How can reflective learners help themselves?
If you are a reflective learner in a class that allows little or no class time for thinking about new information, you should try to compensate for this lack when you study. Don't simply read or memorize the material; stop periodically to review what you have read and to think of possible questions or applications. You might find it helpful to write short summaries of readings or class notes in your own words. Doing so may take extra time but will enable you to retain the material more effectively.

SENSING AND INTUITIVE LEARNERS
- Sensing learners tend to like learning facts, intuitive learners often prefer discovering possibilities and relationships.
- Sensors often like solving problems by well-established methods and dislike complications and surprises; intuitors like innovation and dislike repetition. Sensors are more likely than intuitors to resent being tested on material that has not been explicitly covered in class.
- Sensors tend to be patient with details and good at memorizing facts and doing hands-on (laboratory) work; intuitors may be better at grasping new concepts and are often more comfortable than sensors with abstractions and mathematical formulations.
- Sensors tend to be more practical and careful than intuitors; intuitors tend to work faster and to be more innovative than sensors.
- Sensors don't like courses that have no apparent connection to the real world; intuitors don't like "plug-and-chug" courses that involve a lot of memorization and routine calculations.
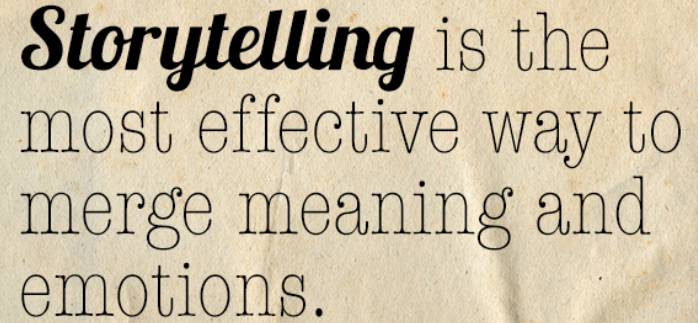
Everybody is sensing sometimes and intuitive sometimes. Your preference for one or the other may be strong, moderate, or mild. To be effective as a learner and problem solver, you

Metacognitive Storytelling

Prewriting: Learning Timeline

Student Learning Outcomes

1. Ability to reflect on previous learning strategies

2. Articulate skills/learning to others

3. Greater understanding of the way they think, how they learn, strengths & weaknesses

4. Increased ability to transfer understanding to real-life situations

5. Enhanced self-awareness for lifelong learning

6. Engage in planning/strategies necessary to the writing process and their own development

Storytelling is the most effective way to merge meaning and emotions.

Conclusions and Reflections

Upon analysis of student work, and progress throughout the semester, it can be concluded that:

- **Metacognitive storytelling increases awareness of learning styles and strategies**
  - "From this experience I have discovered that I am both a sequential and visual learner. I am a sequential learner because I had to break down the [volleyball] hit piece by piece and in steps to get a better understanding of it. Learning things in steps helps me see the larger outcome of things."

- **Students use strategies and apply mindful learning to other assignments**
  - My favorite project was the final Presentation because it consisted of networking, communicating, writing, and researching my passion. It illustrated my skills of communication, organization, and creativity. It showed that my learning style was very hands-on. I have learned that I am a hands-on learner who leads by example. I had learned this because doing the primary research and interacting with others truly helped me learn the most about the field itself.

- **Students also transfer these skills to other courses/across disciplines**
  - "This project helped develop my mind, and challenged my way of thinking… I am now taking Psychology at 8 in the morning. It is nothing but a huge lecture via power point. I find it difficult to focus and process the information, so I find myself after every lecture taking the notes home and reviewing, breaking down the information to myself. It's a work in progress."

Conclusions and Reflections, cont.

- **Analytical and critical thinking skills are improved**
  - "My favorite project of this course was the redesign of the ad analysis essay. It was my favorite project because it made me think outside of the box while redesigning the ad. The redesign of the ad analysis illustrates my learning style because being a sensing learner, I understand information best if it connects to the real world."

- **Students are better able to talk about their strengths and weaknesses with others (in settings like peer review and conferencing)**

  - "I am quite a leader when it comes to groups, and I am always looking to poke and prod to get new answers and spark conversation. This was reflected in these group projects quite strongly and backed up my theory I had about my self learning and group dynamic."

- _**BONUS OUTCOME**_**: The student-teacher relationship is enhanced, leading to open communication**
  - "Because of this class, I am looking into majoring in English for Elementary Education, so thank you for all you have taught me. You made a big impact on myself as a writer and my career path."

Activity #2: Metacognitive Storytelling

Think about a time in your teaching career when something didn't go as planned.

For example:

- An assignment that was not well-received, or did not achieve the learning outcomes
- A lecture that did not keep students engaged
- A group activity or in-class assignment that did not go as well as you had hoped

Ponder the following:

- Briefly describe the experience.
  - What happened? What were you thinking and feeling?
- Describe the methods you used to teach the material and reflect on what worked and what didn't.
- Evaluate the structure and design of the lesson/assignment itself, recommending changes where needed.
- What could you have done to adapt the experience to your students' styles of learning?
- What have you learned about yourself as a result of this?

Mindfulness: A Response to Metacognition

- Once your students become more aware of what they think, how they feel, and how these thoughts and feelings impact the way they approach assigned tasks, it will be helpful to them to provide in-class activities that target issues like anxiety and negative thinking.

- This issues often arise from past traumatic experiences or worrying about the future. Mindfulness answers the question, "How can I get my students to focus on the present?"

What is Mindfulness?

- "Awareness that arises through paying attention, on purpose, in the present moment, non-judgmentally" (Kabat-Zinn, 2005).
- Mindfulness focuses on the present as a way to de-clutter our minds from worrying about the past or future
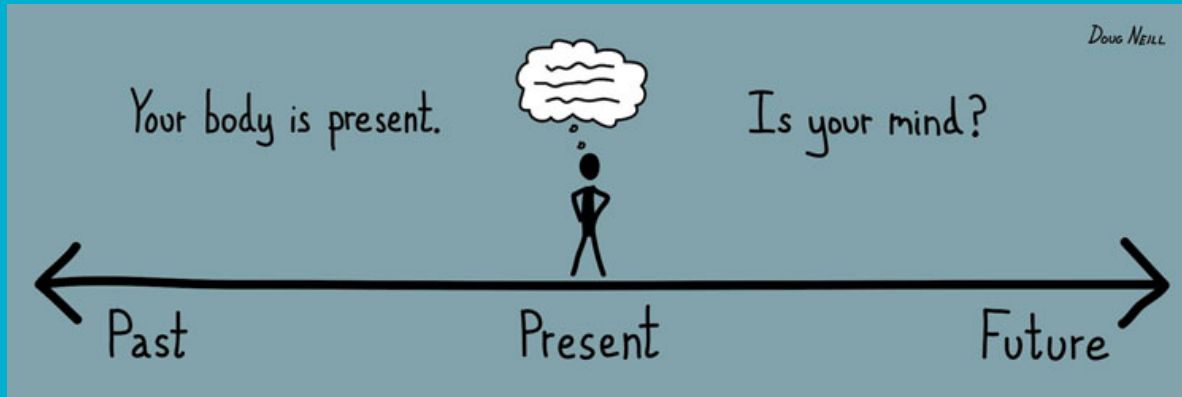
Mindfulness in the West

- Mindfulness has Eastern Buddhist origins; expect Western resistance

Mindfulness and Religious Conflict

I like to think of mindfulness simply as the art of conscious living. You don't have to be a Buddhist or a yogi to practice it. In fact, if you know anything about Buddhism, you will know that the most important point is to be yourself and not try to become anything that you are not already. Buddhism is fundamentally about being in touch with your own deepest nature and letting it flow out of you unimpeded. It has to do with waking up and seeing things as they are. In fact, the word "Buddha" simply means one who has awakened to his or her own true nature.

(Kabat-Zinn, 2005, p. 6)

Mindfulness and Religious Conflict

So, mindfulness will not conflict with any beliefs or traditions—religious or for that matter scientific—nor is it trying to sell you anything, especially not a new belief system or ideology. It is simply a practical way to be more in touch with the fullness of your being through a systematic process of self-observation, self-inquiry, and mindful action. (Kabat-Zinn, 2005, p. 6)

Mindfulness in Education

- Mindfulness and meditation's positive effects on focus development and stress reduction have lead a number of college instructors from business, accounting, sociology, and nursing to incorporate its practice into their pedagogy (Borker, 2013; Helber, Zook, & Immergut, 2012; dos Santos et al., 2016).

- Specific outcomes may include :
  - Staying focused in learning situations
  - Moving from fear to curiosity in academic learning
  - Finding an inner source of calm
  - Feeling more self-acceptance when facing difficult situations (Hjeltnes et al., 2015)

How Do I Start the Conversation?

- Engage in metacognitive discussions ("What do you do when you are faced with an unfamiliar task?")

- Include active learning activities--like "Think/Write-Pair-Share"--and ask students to reflect on their thoughts and feelings ("Take three minutes to write about how you feel when asked to put a paper in MLA.")

- Be vulnerable and open with them and/or validate their thoughts and feelings ("It is completely understandable that you would be feeling anxious.")

How Do I Start the Conversation?

- **Encourage students to identify thoughts, feelings, and judgements, and respond with challenges, affirmations, and mindfulness.**

- Identifying the Thought: "I can't finish this assignment."

- Identifying the Feeling: Shame, anger, guilt, fear, etc.

- Identifying the Judgment: "I suck at this."

- Challenge: "You finished and received a high grade on the last assignment. That's evidence that you can do it again."

- Affirmation: "It makes sense you would feel nervous approaching this assignment. It is new and unfamiliar, but that doesn't mean you can't do it."

- Your Toolbox: "Which mindfulness tool can you use to reduce your stress and retain focus to complete your goal?"

10 Growth Mindset Statements

What can I say to myself?

FIXED MINDSET

GROWTH MINDSET

INSTEAD OF:

I'm not good at this.

I'm awesome at this.

I give up.

This is too hard.

I can't make this any better.

I just can't do Math.

I made a mistake.

She's so smart. I will never be that smart.

It's good enough.

Plan "A" didn't work.

TRY THINKING:

1. What am I missing?
2. I'm on the right track.
3. I'll use some of the strategies we've learned.
4. This may take some time and effort.
5. I can always improve so I'll keep trying.
6. I'm going to train my brain in Math.
7. Mistakes help me to learn better.
8. I'm going to figure out how she does it.
9. Is it really my best work?
10. Good thing the alphabet has 25 more letters!

(Original source unknown)

@sylviaduckworth

Activity #3 - Practicing Mindfulness

Mindful Breathing

Activity #3 - Mindful Breathing Debrief

1. How do you feel?

2. What are you thinking?

3. What are you physically feeling?

4. Does this exercise provide you focus, relaxation, or calm?

Additional Mindfulness Activities

Mindful Touch

Additional Mindfulness Activities

Mindful Eating

Activity #4 - Group Debrief

1. What are some benefits of using metacognition and mindfulness in the classroom?

2. What are some challenges and potential problems?

Question & Answer

What additional questions do you have for us?

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