Guiding Students in Metacognition
A Workshop

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What is Metacognition?

• An individual’s awareness and thoughts about his/her own thinking and learning **processes** (Flavell 1979)

• An ability to monitor, track, evaluate, and change one’s thinking and learning **processes for transfer, deep learning, improvement, success** (Bransford, Brown, & Cocking, 2000; Akyol & Garrison, 2011)

• “**malleable and teachable**” (Lewis, Eden, Garber, Rudnick, Santibañez, & Tsai, 2014; Kuhn & Dean, 2004; Paris & Paris, 2001)

• **Evident in students’ learning portfolios** (Meyer, Abrami, Wade, Aslan, & Deault, 2010; Dalal, Hakel, Sliter, & Kirkendall, 2012; Wozniak & Zagal, 2013)
Why study metacognition at DePaul?

• **Goal 5: Integration of Learning**

  Given the wide range of opportunities for learning at DePaul, it is important for students to develop the ability to consider relationships among individual experiences of learning so as to make meaning of their education in all its variety.

• **Outcomes:** DePaul graduates will be able to:

  • relate their learning -- curricular and co-curricular -- to multiple fields and realms of experience.
  • make connections among ideas and experiences in order to synthesize and transfer learning to daily practice.
  • design, develop, and execute a significant intellectual project.
Metacognitive Markers

1. **Chronology of Learning - Past, Present, Future**
   - Connects/transfers a prior learning experience to a present or future one
   - Analyzes how to apply learning in future

2. **Process and/or Strategies for Learning**
   - Discusses process of learning (e.g., “I tried X, Y, Z”, iterative, steps taken)
   - Explains the efficiency/effectiveness of learning tools/strategies/shortcuts
   - Analyzes the role of "players" in learning (coworkers, teachers, peers, friends, family)

3. **Strengths and Weaknesses**
   - Assesses one’s strengths and weaknesses
   - Describes specific skills, ways of thinking, or actions: "I failed," “If I had not done X,” “Monitoring"

4. **Emotive and Affective Connections to Learning**
   - Discusses affective experiences – “I felt,” “I love” – and values – “I believe”

E. **Multimodal Element Demonstrating Learning Awareness**
   - Connects between image/video/audio piece and metacognition; an explanation for inclusion is provided (explicit), or the author expects the reader to make the connection (implicit)
What do the markers look like in student work?
Now the moment you've all been waiting for! The grand finale. In making my final draft of my research paper I looked back at my first idea and how many changes I had made. I began with the idea of public verse private schools and ended up with the specific topic of how Montessori schools are a solution to the issues left by No Child Left Behind. With each major assignment, I became closer and closer to this final product. My first draft was just an opening act compared to this final paper, when I started I was still a bit unsure where my topic was even going. I did not have a conclusion and basically just looked at my research evaluation as a mini rough draft. After the in class self-evaluation, I did some cleaning up and reordering of paragraphs before I tackled writing a conclusion. When I read the summary I wrote for my paper I realized it was more of a conclusion of than a summary and went from there. I finally had all my areas I wanted to talk about covered and a conclusion. My second draft is really where I did the major revisions. For the final draft, I just needed to polish up a few areas. In the end I was very satisfied with my paper and believe it shows the progress I have made in WRD 104 when looking at the first and final drafts.
please my audience I needed sources that were both scholarly and functional. To find such acts I had to know exactly what I wanted to say about my topic but I didn't know where to find sources that could do so without losing creditability. **Looking at my research proposal**, my topic of private verses public schools was bland and boring. I refined my ideas towards an idea that was fairly unheard of. I aimed to find research about how Montessori schools could help intercity schools like they did in the ghettos of Rome. After developing a specific topic, the research evaluation was a bit of a challenge. My topic was too specific. My research was narrow and hard to come by. I needed to find more acts that would make my paper a piece that that kept my audience on the edge of their seats wanting more, but I needed to talk to someone to find these sources. I **met with a research librarian to help me find scholarly information. She taught me not to just trust any source on DePaul's library page because many were opinion articles of people who were published.** After meeting with a librarian, I knew how to find information but still needed more. I needed to broaden my scope. Once I did so, I organized my ideas to see exactly what I needed to research. I broke my paper into understanding the problems in public schools due to No Child Left Behind and what parts of the Montessori system could be incorporated to
Processes/Strategies

Emotional/Affective

This helps strengthens my own belief system, because it makes me conscious of what I am willing to believe and what I am biased against.

For example, while reading William Damon’s book *Path to Purpose*, I read that Damon claims that religion is the only positive purpose that helps good development in youth. I am not a religious person, so this immediately placed doubt in my mind. I thought of the possibly negative developments it leads to youths, based on my own experiences and news. I remembered in my childhood being insulted by both children and their parents because I was not religious like them. I decided this was a negative development, because they were taught, by their religion, to be intolerant of others.

Then, I thought about the same claim from a religious person’s point of view. They may see religion as a built in community, one that supports its members and helps others solve life problems. This would be a good development to be taught. By playing the believing and doubting game I opened my mind to new ideas and possibilities. It also improved my analytical reading skills by making me look for the claims of an author and decided whether or not I believe them.
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Another skill that has improved during the first half of the quarter is my strategic listening skills. Now, I listen to the tone and diction of a speaker. Before, I would simply listen to hear what they were actually saying. For example, the first time I watched the “Escape from North Korea” video, I only heard what the speakers were actually saying. Then, I listened to their word choice and their tone of voice. To me, Melanie was calm and collected, while Adrian was passionate. He used more emotional words and she used words with exact definitions, as to not confuse their meaning with something else.

The improvement in all three of those categories led to the improvement in my writing ability. Now, when I write I use my improved critical thinking, analytical reading, and strategic listening skills on myself, to see what I’m really saying. I’ve learned to step back and look at my writing from another’s point of view, to see if my writing represents what I’m truly thinking.
What do students say?
Using the portfolio to reflect on learning
What do students say?

• I loved the use of viewing the “big picture.” Many times, I tend to lose myself in the small details and become frustrated with my work. Looking at the outcome and working backwards helps me to visualize and then create.

• I think my portfolio represents myself as someone who learns a lot from reflection. I honestly believe the reason why I remembered so much from my WRD 103/104 class was because of the nature of the final projects. When you are given time to reiterate what you have learned, it is easier to recall in the future. I also believe that because reflections give you more freedom to do what you want with our final, you naturally want to do a better job than just given a structured paper to write. Because you want to do a better job to show yourself in a better light, you will work harder on the project, which will just enforce the learning process.

• Although I knew that my prior, non-teaching related learning was important in that it could be applied to another, future context, creating an e-portfolio helped me to understand the extent to which this prior learning could add value to my presentation of myself as a professional.
The Workshop Part

• Which of the markers do you think might be particularly useful to the work in your discipline?

• Talk with your neighbor about either
  • an existing assignment that includes metacognition
  • how you might modify an existing assignment
  • how you might create a new assignment that elicits metacognition