What the Brain Wants
Kate Dinerman

1. Some of the main things you learned from the conference.
   • I learned a lot at this class!
   • It’s common sense, but taking care of your body is important to brain health and development. You have to eat well, exercise, have loving and connected relationships, and you have to keep learning interesting and challenging things.
   • The brain is plastic. It rewires and changes all the time. You will continue to make new connections and grow new neurons—exercise can even help with this. Your brain becomes less plastic over your lifetime.
   • Yet, the brain is still fixed, and each person’s brain is different. Each person’s brain has different strengths and capabilities. You can strengthen and stretch these different aspects (but you can only go so far—we will all not be Michael Jordan).
     o Different size rubber bands analogy.
   • The more of the cortex you employ, the more you remember things. There will be more inputs to the brain. It can actually take less time to learn things this way.
   • Regarding executive functioning, a lot of these skills, such as planning and organizing, have to be taught and modeled.
   • I just knew about the big brain development window from 0 to 3 years old. There is another important window of brain development from 11 to 18 years old.
     o Keep in mind that the high school aged student’s brain is still developing!
   • When we revisit memories, they are vulnerable to reinterpretation. Memories change!!!
   • The brain processes physical pain and emotional pain in the same way.
     o A new study shows that taking acetaminophen can help with emotional pain!
   • Play is important! It is at our most basic, mammalian core. All mammals play. You will get results with rigorous content in a game format.
   • Stress can do physical damage to the brain.
   • Intense cardio exercise causes new neurons to grow.
   • A fit body has a better functioning brain—didn’t Elliott Galloway always say that?!
   • Background music can help with focus.
   • Music classes, especially piano lessons, can help with reading and math.

2. How will you apply those things that you have learned back in your classroom or in a project?
• To always keep in mind that, as a teacher, my main job is to help kids increase their cognitive ability—I am trying to help them improve their thinking skills.
  o One study looked at kids that had done very well on a test at the end of a unit—kids that a teacher would assume really understood the subject matter. The kids were tested 30 days later, and they only remembered 10% of the material! With this in mind, it’s important for teachers to really think about what we teach. If our students will only remember 10%, what are the big ideas that are most important?
  o If kids are not remembering facts and material, is that really what we should be spending the bulk of our time teaching?
• I love the idea of making students aware of the brain. It would be great to have the kids buy into the idea that “I am changing my brain by doing this.” It would be great to have kids think about how they are strengthening their brains through repetition or through exercise or through whatever activity you are doing in class.
• Regarding executive functioning, I can model some of the behaviors I’d like the kids to develop over time.
  o I can talk through my plans/planning out loud. I can speak my logic and reasoning for why things are happening in the order or manner that they are.
• It takes a long time to commit something to memory. You will remember something best if there is interest, relevance, motivation, and an emotional connection.
  o You have to repeat, reiterate over time.
  o Manipulate new information elaborately—have the children do something with information they’ve just learned—change it, make a connection to something meaningful.
• Because you remember things more when you employ more parts of the cortex, be sure to teach something in as many different ways possible—to activate different parts of the brain.
• Make learning a game as often as possible. Everyday math does this well and pre-K lessons tend to be play oriented.
• Add pleasant background music to my classroom.
• Think about managing the brain states of the class. Try to read the temperature of the room and manage it accordingly—do we need to dance (to wake up the brain), meditate (to calm), or discuss (to develop trust and show empathy).
• Support different brains, strengths, talents, and interests.

3. Will the experience change the way you are teaching? How or why not?
• Yes! I will be so much more aware of the way I am teaching and shaping each child’s brain. More than anything, this had changed my mindset about teaching. It’s not just about the material; it’s about helping children best develop their brains. What an important job!
4. Would you recommend your experience to other Galloway teachers? Rank your experience from 1 to 10.

- Yes! I learned so much from this class. The teachers made the class interesting, funny, and engaging. The teachers and staff at The Howard School also did such a great job putting the class together. They gave each of us a USB jump drive that has all of the slides from the presentation, references, and articles. There were snacks and flowers on the table. It was a great day! I would give this class a 10.
- I would also love to go to any other classes these teachers put together!