

"The subjects we teach are as large and complex as life" - Parker J Palmer

A truly learned experience

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for CSCI 1300



My progress as an LA

How I began:

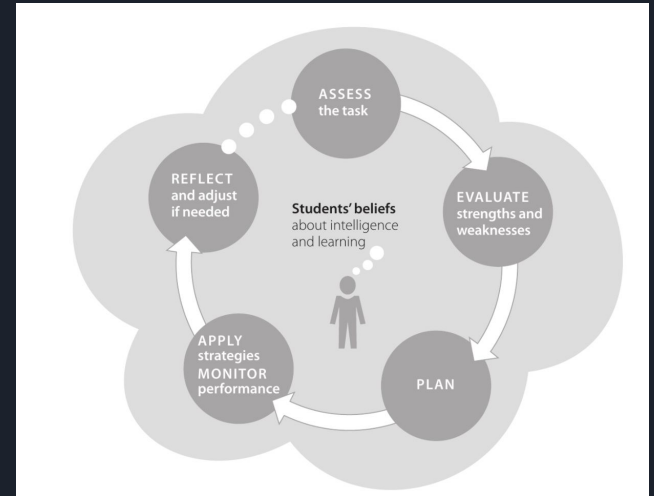
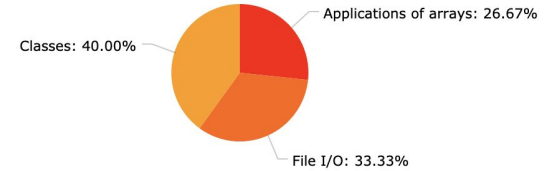
At the beginning of the semester I wasn't as engaged with my students, but I made sure that they were able to understand the concepts through my illustrations and coding examples. I focused on techniques such as metacognition and constructing knowledge, but I didn't really give that much feedback or promote a growth mindset for my students. I was mainly focused on making sure that the student got the problem done.

Now:

After receiving feedback from my students and analyzing the audio transcripts I recorded this semester's, I was able to figure out what I needed to do in order to become a better teacher. I learned that the heart of teaching comes from promoting a growth mindset within the students. In order to do this I had to engage with my students on a social level and allow them to feel comfortable with asking questions and receiving feedback. After practicing these techniques I saw a decrease in the number of students in my office hours which indicates that they are able to learn independently and at that point I didn't have to engage with them as much.

Metacognition

- The foundation and catalyst of student learning
- As an LA, I try to invoke the student's critical thinking by having he/she explain the problem that they are trying to solve and all the processes involved. This is especially important in CS because the logic needed precedes every line of code that is written.
- I was able to implement this pedagogical technique during 1-1 office hours with students
- When using this technique, it is important to ask the relevant questions that allows the student to apply their current knowledge to the task at hand.
- "how do we know we are going to enter that if statement? "
- "What happens next?", "why do we use a loop?"
- Ultimately, this technique helps facilitate the interaction between a student and a teacher and leads to more effective and efficient problem solving.



"I think that my biggest problem is understanding how to convert what I know the program has to do and figuring out the best course of action to implement code."

Practice!!!!!!

Giving effective feedback

"He often shows us the code of the concepts that we discuss in class so like to help send a point home he'll just make sure to show us the code of the concept to help us understand"

It is imperative that students are able to understand why they made mistakes and how they can fix them. Communication between the LA and the student is paramount to the student's success because it ensures that the student won't make the same mistakes via a error in logic or syntax. Most often, the student has to learn computer science independently, and so offering feedback is a great way for the student to change the way they would originally approach a problem. What I like to do is use rhetorical questions to emphasize the main concepts and allow the student to respond and let that cycle continue until we both reach a solution. Tools I used to give students feedback in our virtual learning environment included Piazza, Email, and Zoom for 1-1 office hours.

"I'd say just to be more social about answering questions to the best of your ability."

"The best way to provide feedback on the learning process of your student is to listen, question, and listen some more" -Ambrose



Promoting a growth mindset

This technique is one of the trickier ones to implement because having a growth mindset is a choice. As LAs, it is important to empathize with students and let them know that failure is a part of success and also let them know that what they are learning is not supposed to be easy. The best thing LAs can do to promote a growth mindset is to influence and motivate their students to succeed by learning with them. We have to be good leaders and allow students to lead their peers as well. What I find helpful when I interact with a student is providing positive reinforcement. I also empathize with the student by letting them know that I also struggled with learning the material but was able to get over the hump and was inspired to help others get over that hump as well.



My Advice for Future LAs

- It is okay to not know how to answer a student's question. When this happens, you can:
 - Refer them to another TA or Instructor
 - Provide resources such as GeeksforGeeks, StackOverflow, or a YouTube video
 - Have them collaborate with their peers
- Be consistent with office hours and make sure your students know when your office hours are
- Tell your lead instructor about student concerns and feedback about the course
- Remember that you are a student in the field of education. You will also make mistakes but you will grow from them and become a great teacher. You too will expand upon your metacognition by receiving feedback from students.
- Have fun with it! It's a pretty cool gig :)