



Tutoring Writing in Neuroscience: Piloting a New Approach to Writing Tutoring

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Tutoring Writing in the Disciplines (TWID), Boston University Undergraduate Program in Neuroscience

Introduction

- Students, teachers, and professors alike have recognized the great utility of having tutoring options available for a number of courses
- At Boston University there were already programs specific to CAS writing courses and the ERC offered private tutoring in subjects such as chemistry, physics and languages
- However, there was a deficit in tutoring focused on specific styles of writing such as in the scientific manuscript
- The neuroscience department puts a large emphasis on teaching students to write about the experimental process in the a style appropriate for a scientific audience
- Many students struggle to make this transition in writing at first, thus creating a need for a new directed program of tutoring
- With the new addition of the BU Hub, more emphasis is placed on writing, adding new writing specific requirements to general education requirements
- This spring served as a semester long project in piloting a new writing program, discipline specific, for neuroscience

Hypothesis

We hypothesized that by advertising and implementing this new program we could encourage students to take the opportunity to receive additional mentorship in challenging writing assignments and learn strategies that they could use throughout their writing career. We also hypothesized that utilizing neuroscience majors who have experience in the courses and could act as peer mentors in the process would be effective; particularly in conjunction with a supportive educational writing course for the tutors.

Methods

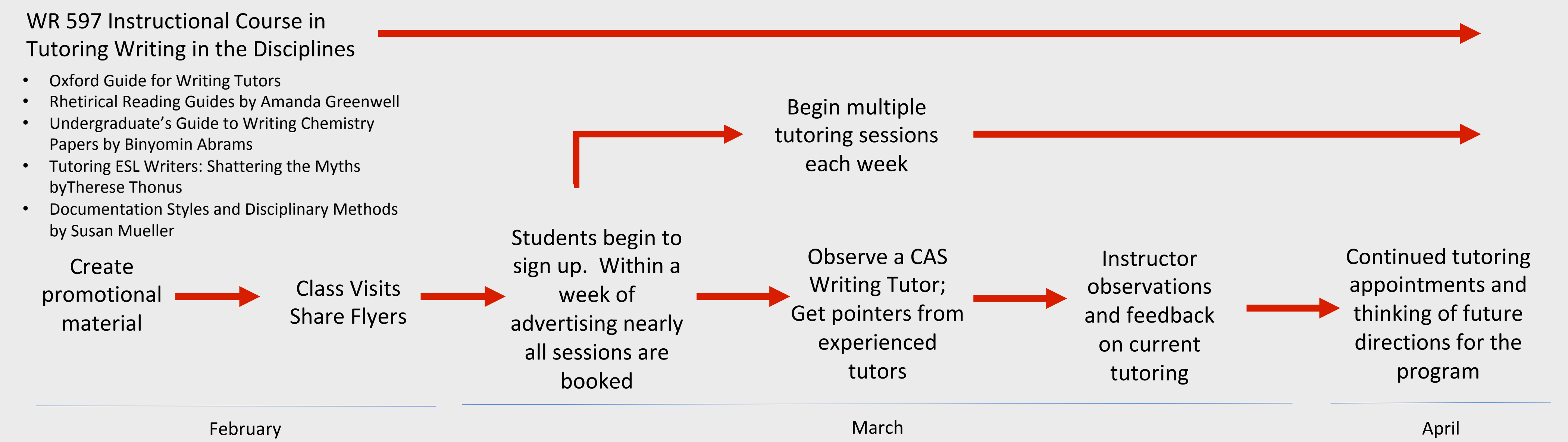
- At the beginning of our course we watched a series of videos and discussed some of the strategies we could employ as writing tutors and some of the common mistakes we should try to avoid
 - Some positive strategies:
 - Smiling; asking about how the course is going; listening intently and confirming understanding of what the student is saying; giving the student ample time to answer questions; a review of what was discussed at the end
 - Some common mistakes:
 - Proofreading; asking a question and not giving the student enough time to answer; sitting across the table and taking the draft; nit picking

Background
Exhibit
Argument
Method

FIG 2. The BEAM framework is a strategy we learned about in class that could help explain to students various components of strong writing and provide writers with a structure that could allow them to evaluate their work. In class we discussed the ways in which this strategy could be applied specifically to the scientific manuscript as seen in in lab portion of NE102, Introduction to Cellular and Molecular Neurobiology.

FIG 3. This is an example of the client form that allows students to sign up for a tutoring session. It includes space for the student to provide information on the assignment, what they would like to work on, and a spot to upload any relevant documents ahead of time if they would like to. A similar report form is uploaded by the tutor that recaps what was done in the tutoring session and provides space to write about the next steps for the students.

The Flowiest of Charts



Analysis

She [Dr. Pastorino] remarked that by the time you are writing it is not about the experiment any longer, but rather, about getting your idea across to your audience.

FIG 4. This depicts a paraphrased statement from Dr. Pastorino when asked about how to approach working with students for writing tutoring. Each of the writing tutors interviewed a faculty member in the discipline involved in scientific writing.

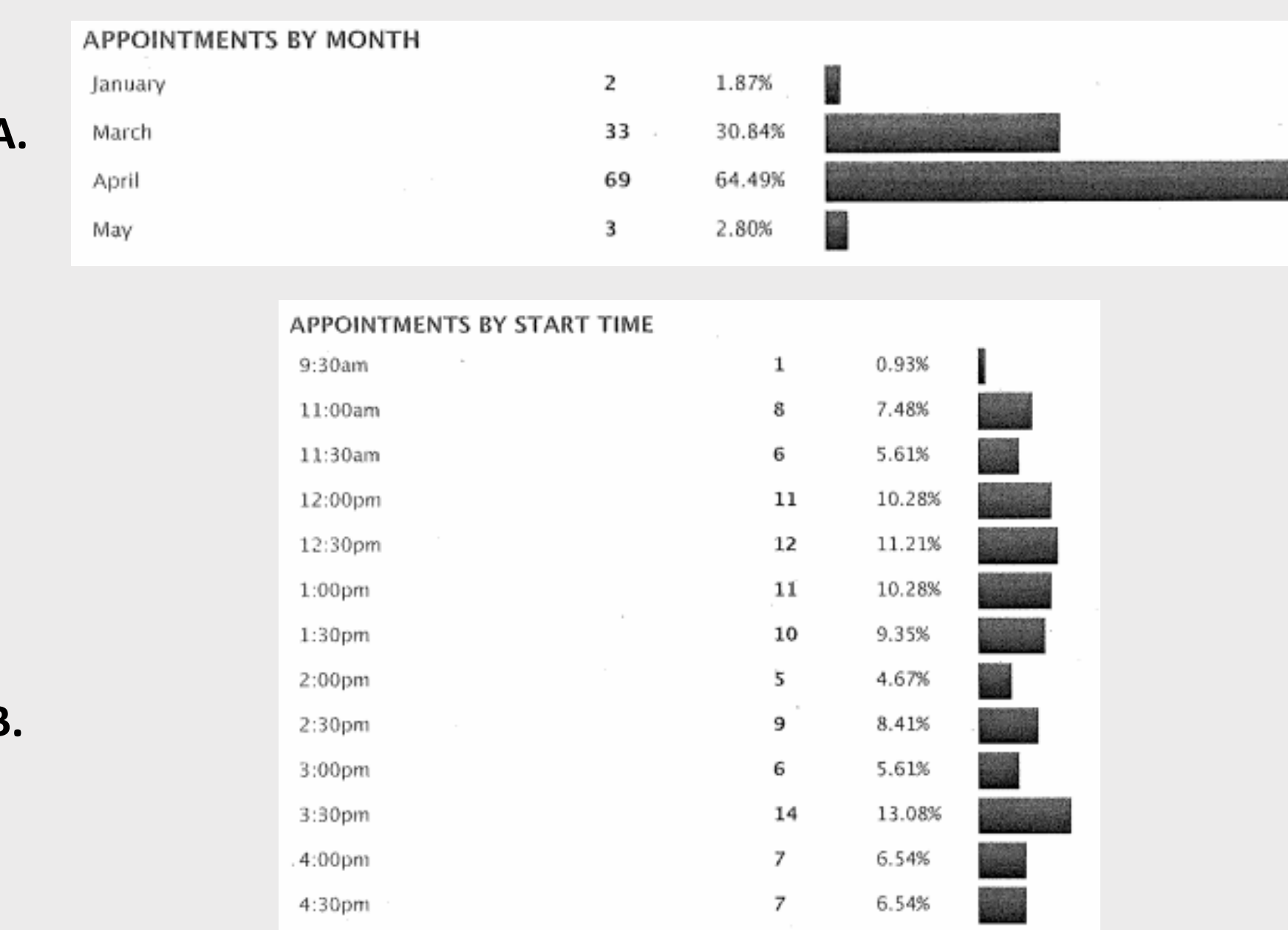


FIG 5. These statistics are based on 107 appointments from 55 client reports. A. Based on the monthly report statistics, the majority of students scheduled sessions in March and April than the other months. Students in NE102 begin the writing process the week after spring break, when the first component of the scientific manuscript is due. Allotting more time to these months might increase access to the program for more students. B. The start time statistics indicates that the majority of students scheduled sessions from 12-1:30, and at 3:30. Since students seem to be more free during the middle of the day, perhaps we should consider creating more workspace so that multiple tutors can work. Additionally, based on student feedback, it is beneficial for students to schedule a session directly after their lab.

Conclusion

This semester students and faculty worked in implementing a new format of writing tutoring targeted to specific disciplines. Within the neuroscience major, students are taught about scientific writing -- which can often prove very challenging. By immersing current neuroscience upperclassmen in a writing course aimed to provide insights and techniques on how to use knowledge of the courses and content to help students, the TWID program provided a new opportunity to help improve this critical skill. Advertising using posters, classroom and lab announcements, and endorsements from professors proved highly effective in making the program known to students. During the sessions we could then implement what we learned during the course. Many students return for multiple visits and new students try out the program. In the future this program could consider expanding hours as many students were unable to sign up because of the minimal number of available time slots. Further, we could possibly expand to weekend hours which would increase flexibility for students and tutors. Also, the program could consider group sessions. Overall, the program was a great success!

Future Directions

Based on student input and course content, some actions we can take to better the program include the following:

- Advertise earlier in the semester
- Survey for NE102 students to indicate:
 - Which time slot is most compatible with their schedule
 - If they have any feedback for tutors
- Schedule more appointments after Spring break
- Interact with Lab Assistants to receive input on what students struggle on

Special Thanks



Self Promotion

- Create and distribute flyers
- Talk to professors and get them to promote in class
- Visit all courses that involve writing in neuroscience and talk about the program
- Post the link for writing appointments in the neuroscience weekly email

Neuroscience Writing Tutors

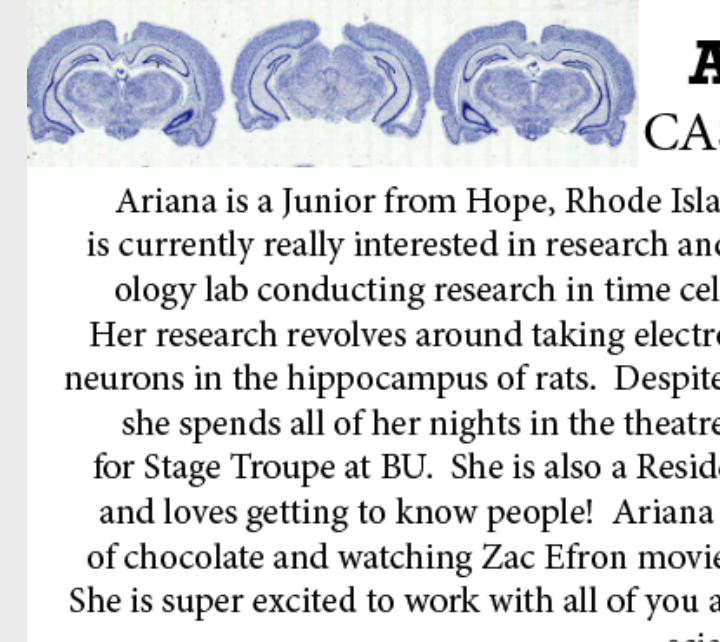
Appointments available at: <https://buwriting.mywonline.com>
Location: 2 Cummington, Room 218

A way to get help from fellow students who understand writing specific to the neuroscience discipline.



Kawtar Bennani

CAS 2020: Neuroscience and Computer Science
Kawtar (KOH-Tar) was born and raised right here in Boston. She is a junior studying Neuroscience and Computer Science and plans to continue her studies in graduate program in Europe. Her academic interests include examining the brain from a computational standpoint and learning about plasticity. Outside of class, she is a part of running club and Residence Hall Council for Myles Standish hall, and volunteers in a biological neuroscience lab. During her free time, she enjoys exploring the outdoors, writing poetry, and watching (and overanalyzing!) movies. She is a huge fan of photography and music. She is thankful for having the opportunity to connect with fantastic young minds and excited to work with you on your writing!



Ariana Tortolani

CAS 2020: Neuroscience
Ariana is a Junior from Hope, Rhode Island studying Neuroscience. She is currently really interested in research and works in a cognitive neurobiology lab conducting research in time cell sequences related to memory. Her research revolves around taking electrophysiological recordings from neurons in the hippocampus of rats. Despite studying neuroscience all day, she spends all of her nights in the theatre and is on the Executive Board for Stage Troupe at BU. She is also a Resident Assistant at Warren Towers and loves getting to know people! Ariana enjoys eating copious amounts of chocolate and watching Zac Efron movies as a way to avoid homework. She is super excited to work with all of you and to share her love for neuroscience with other fellow students!



Audrey Wack

CAS 2020: Neuroscience & Chemistry / Visual Arts Minor
Hello, I'm Audrey. I am a junior neuroscience major and chemistry/visual arts minor from Buffalo, NY. I am currently working on resting state MRI studies involving visual and auditory tests and work in chart review/systematic review studying vascular neurosurgery. The writing techniques taught in the neuroscience department, particularly in NE102 and NE203, were some of the most crucial that I have learned in my time at BU. They certainly helped foster my engagement in outside projects and have translated across departments. Outside of the classroom I really enjoy running and painting.

FIG 1. Example of the flyer that was created and shared throughout the neuroscience department. This flyer appeared in weekly emails with the link to sign up for writing appointments.