PROTOTYPING PRE-CONFERENCE PRIMERS FOR STUDENT-INSTRUCTOR CONFERENCES

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ABSTRACT

The current student-instructor conference format in the freshman English course (76-101) is generally a two-step process where students receive feedback, and then meet with the instructor to clarify any additional comments or the reasoning behind the feedback itself. However, previous research indicates that an additional step of students reviewing the material would significantly boost learning outcomes [1,2,3]. To address this gap in the system, we designed a pre-conference primer system that would prompt students to reflect on both their work and the instructors' feedback. Our research was centered around the research question: how can we design effective primers for academic conferences? Below, we describe the design, prototyping process and the evaluation of the system, as well as suggestions for future research. Based on a post-experiment survey, the system was successful in prompting reflection and improving the quality of conferences. Future research would entail not only continued work in the same direction but also further applications outside of one-on-one academic conferences.

THEMES

This project is focused on previous research in feedback, priming, and deliberate practice. The primer system was designed to improve the quality of feedback instructors give to students and incorporate a layer of students providing feedback to the instructor in conference settings. Additionally, students using our system would deliberately repeat the process of proofreading their paper and formulating questions using feedback from an expert (i.e. the instructor).

PROTOTYPING PROCESS

To answer the research question, we approached the Global Communications Center (GCC) and discussed how a pre-conference primer system could improve the quality of conferences between consultants and students. With their feedback, we created multiple prototypes of primers with different content and communication styles. Different formatting variables included: length, content focus, and formatting (e.g. bullet-point style vs. prose). These prototypes were designed with focus on basic writing objectives (e.g. refining the research focus, improving writing flow, etc.) that could apply specifically to first-year writing students (refer to Figure 4).

After developing the primers, instructors of 76-101 provided additional feedback on how the initial primers could be adapted to improve students' learning outcomes. Through these conferences, we found that although all interviewed instructors were teaching the same course and assigning the same papers (refer to Figure 3), they each had very specific preferences for what they wanted to discuss during their conferences and how they wanted students to prepare for them. One instructor (who did not participate in our study), for example, indicated that his one-on-one conferences were concerned not only about the assignment itself but also other logistical issues in the course and to gauge the student's holistic learning progress outside of the assignment. Other instructors were more focused on either learning goals specific to this assignment or addressing common issues with the assignment drafts.

METHOD

Data was collected from three classes that primed students before conferences: two received our primers and the other was primed by the instructor's initiative. Class 1 received a prompt via Blackboard asking them to bring three goals they have for the conference with them (refer to Figure 1). The instructor required all students to come to the conference with these goals not only reflected on, but also written out (refer to Figure 2). Class 2 received a primer via e-mail that focused students on reflecting on the significance of their research (refer to Figure 5). Students in class 3 went through a slightly different format; they reflected on their papers through a three-way peer review process prior

to the conference without our primer, and then discussed their reviews with the instructor and two other peers during conferences. After conferences took place, all students were asked to fill out a survey to help improve future conferences. Survey questions were designed to not only assess the helpfulness of the primers but also identify any possible extraneous causes for changes in data (e.g. length of conference, length of reflection, etc).

EVALUATION / RESULTS

Survey data collected from 24 students from the 3 classes indicated that the primer successfully prompted students to reflect on their papers and improved the quality of the conference. 66.7% of the students indicated that the primer successfully prompted them to reflect on their paper before the conference; only 4.2% of the students disagreed with this sentiment. 62.5% of the students felt as though the primer was helpful in preparing them for the the conference; only 4.2% disagreed with this statement. Overall, students seemed to support pre-conference reflection specifically on the content of the conference despite the extra work: 95.9% of the students felt that knowing what will be discussed during the conference would help make the conference smoother and more effective.

Other variables we considered were the length of the conference and how long each student reflected on their papers prior to the conference. According to survey data, 58.3% of students had conferences between 15 and 25 minutes long. 8.3% of students had conferences longer than 25 minutes, while the remaining 33.3% conferenced for 15 minutes or less. There was no significant correlation between the length of the conference with the helpfulness. 74.8% of these students spent 5 - 20 minutes reflecting on their papers, and there was no significant correlation between the additional length of reflection and the helpfulness of the conference. The lack of correlation seems to imply that while it is important for students to reflect on their papers, increasing the length of their reflections should not be a primary goal of designing pre-conference primers.

Our survey also collected qualitative feedback regarding the current model and potential for future improvement. Those who found the primer helpful elaborated:
- "I think, with my goals in mind, it was more structured and I got answers to my questions."
- "[The primer] made me self-reflect on what I wanted to fix in the paper, so rather than the instructor telling me what and how to fix, I asked her for advice on certain aspects of my paper."
- "We wasted less time thinking of things we needed to discuss. The primer was also helpful by forcing me to think about my paper and find the things I need most help with so that [my instructor] could help me with it."

Some of the students who did not find the primer helpful elaborated on their responses by stating:
- "I was limited by the goals I came up with and didn't ask any other questions".
- "If the instructor could tell me in which criteria in the rubric I need to work on the most, that would be really helpful."
- "Typing up a short summary of the meeting to highlight key points that we need to work on."
- "Forcing the students to do a more extensive and specific primer to focus on specifics of the paper rather than the paper as a whole."

These responses call to attention the need to be more conscious of how students' thoughts are guided (e.g. with reference to rubric or without) and discussions are reviewed before and after conferences. Future research should draw upon these concerns as possible points for improvement.

Although the insights above should be important for future research, it is important to note the flaws. For example, to assess the impact of our primer, we asked students the question: was this conference more helpful than your last conference? This question is highly subjective, and does not account for other factors that may have improved the students' experiences between this conference and the last. For example, some students credited the improvement in conference quality to how far behind they were with the current assignment in comparison to the last and how the instructor was more concise with their feedback, not to how the primer made them reflect. It was also difficult to filter out less serious responses, which may have muddled the integrity of our data.

CONCLUSION / DISCUSSION

Our study presented a functional prototype of a pre-conference primer in an academic, student-instructor context, Our system successfully validated the effectiveness of pre-conference primers, with strong correlations between primers instigating reflection and reflection directly impacting the quality of the conferences. However, optimization of this system's effectiveness for first-year writing students would require more iterations under the same system. Additionally, while we showed that the existence of the primer was helpful, primers could have been designed specifically for each of the classes to optimize their effectiveness. Future research in the same area would entail spending more time with the instructors to customize the primers more closely to the actual conferences and cater specifically to the instructors' teaching styles. Conversely, the discussion should be structured to fit the primer model to ensure that both media are compatible. Finally, we could also investigate the effectiveness of our system across disciplines and levels of education to attempt to generalize the pre-conference priming model.

Overall, our system could also be applied to conferences outside of the academic context as long as they involve two or more stages of information exchange. From our meetings with the GCC, for example, we know that their consultation and e-tutoring programs could benefit immensely. Overall, we see that our system which started as a simple add-on has the potential to become a stand alone tool that is utilized by different entities. By automating the system and by allowing for customizability, our system could be extremely beneficial to the CMU community.

REFLECTION

More extensive research could have been conducted with better planning of the allocated time for this project. Because meetings with instructors were difficult to schedule, we saw our experimentation process often rescheduled or delayed. It was also difficult to incentivize students to respond to our survey, as we could not ask instructors to make response to the survey mandatory. We also had trouble incentivizing instructors to participate, and because only 3 classes participated in our study, we were not able to experiment effectively with different ways to communicate the information on our primer. Finally, our data analysis could have been stronger had our deadline been after the conference dates. Because inflow of data input continued right up to the submission deadline, we did not have too much time to analyze for correlations and possible causations.

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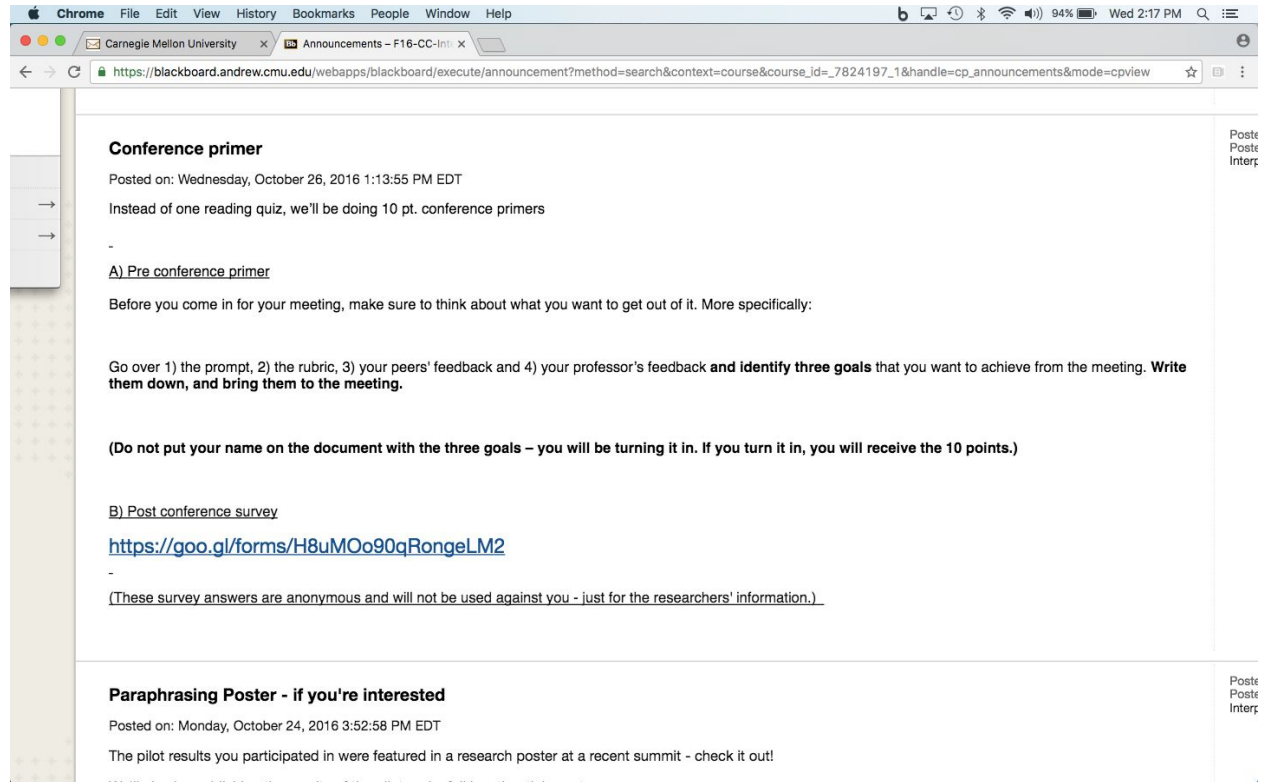
FIGURES

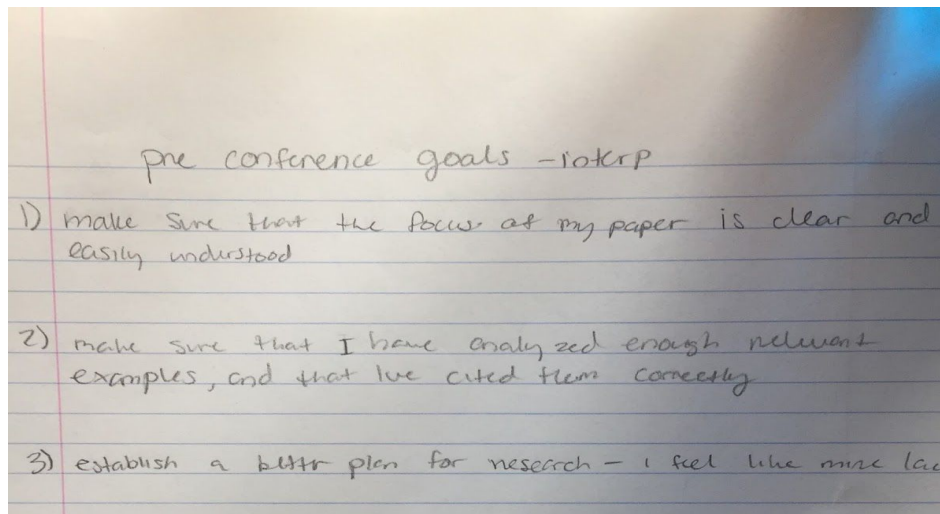**Figure 1:** How Class 1 received the primer and feedback survey.

Figure 2: Students from Class 1 came into conferences with conference goals, reflection points and next steps for revision in mind. 19 students from Class 1 submitted similar responses to the instructor.

Argument Synthesis Essay

In Argument Analysis, you explained how an individual argument "hangs together" to create agreement between a writer and a reader. For this next major writing assignment you will need to explain how a field of arguments might "hang together" along similar ideas or sets of assumptions. **For your Argument Synthesis essay, you will write a paper that explores an issue raised by the essays we've read so far** (such as the credibility of amateurs or the role of social media in political change).

Just as you posed questions to a single author's text for argument analysis, **you will need to pose a question that pulls together a group of authors to represent various perspectives.** This task is also called a literature review, a research summary or a synthesis of research.

Figure 3: Prompt for the assignments students discussed with their instructors.

3. Alternate Prompt (Not related to the essay or the subject)
   a. Before you come in for your meeting make sure to think about what you want to get out of it. Go over your paper, the rubric, and your professor's comments and identify three goals that you want to achieve from the meeting. Feel free to write them down, and bring them to the meeting.

4. So What? Prompt
   a. Before you come in for your meeting, look back at your paper and ask yourself why your specific hypothesis is important. Come to the meeting having answered the question of: "So What?". Find key areas of your paper where you are able to elaborate on the importance of your research question, hypothesis, and the corresponding findings. Make sure your introduction clarifies why your argument is important in the context of previous research.

Figure 4: Drafts of primers sent out to Classes 1 & 2.

Hi all,

Just a few reminders -- Your peer reviews are now due on BB. Also, if you haven't signed up for your conference time, please do so ASAP. Here is the link again: http://doodle.com/poll/xhv8bq7akaza4v73

Also, in regards to this conference, here is a brief "primer" to get you thinking before we meet:

Before you come in for your meeting, look back at your paper and ask yourself why your specific hypothesis is important. Be able to identify specifically where in your proposal that you are answering the "so what?" for your new claim. Also, make sure your introduction clarifies why your argument is important in the context of previous research.

Finally, please come in having looked at both my comments and your peers'. Be able to briefly summarize what your peers have said, and have some ideas/questions on how you want to address revisions.

After we meet, I'm also looking to get a little feedback on conferences. Please fill out this https://goo.gl/forms/ybkcGclv106rlLki1 form after you've finished your conference. This isn't a graded activity (it is anonymous), but I'd appreciate any feedback on making the conferences as effective as possible.

See you all soon,

Hannah

Figure 5: How students in Class 2 received the primer and feedback survey.