Final Report for WDI-Funded Project in CSC290 for 2016-2017 Academic Year

What did you do? What happened with regard to the project? i.e., what precisely did you do, what did your TAs do, etc.? Did you do what you planned to do, and if not, why not? Why? Did it change for reasons specific to this class/this year, or for reasons of general practicality given the context?

With the WDI funding in the 2016-2017 academic year, CSC290 was able to provide students with more opportunity to practice writing skills through multiple writing assignments.

The major writing assignment for students in CSC290 is a critical review essay: two essays for the 20169 term and one essay for the 20171 term. The critical review essay was reduced to one for the 2071 term as students in the 20169 term commented that the second critical review was redundant and they did not feel it was a useful exercise. These comments echoed the sentiments of last year's CSC290 students who were also required to complete two critical reviews.

Students received two tutorials to cover the writing conventions and expectations for the critical review, by a TA who had gone through the WDI training program.

Students were also required to revise their critical review assignment based on the feedback that the TA(s) provided. This activity highly encouraged students to look at the feedback provided on their writing and to act upon them.

The critical review essays are also complimented with group writing assignments - a project charter and a presentation plan.

The class sizes in the 2016-2017 academic year were smaller than usual: 30-40 students instead of 100-120 students. As such, students were required to write a weekly blog post (180-300+ words/week), much of which were marked by the instructor.

How did it work (objective)? What do you know about the project's results with regard to the learning objectives from objective testimony (e.g., analysis of student writing produced)?

In the 20169 session:
The average mark for the first critical review assignment was 68%.
The average mark for the second critical review assignment was 76%.
Both assignments were marked by the same TAs, using the same rubric.

In between those assignments, student were required to correct their first critical review based on TA feedback, encouraging them to not make the same mistakes again. Even though a few students commented that the second assignment was redundant, the marks clearly show that students' writing abilities were improved.

In the 20171 session, students were only required to complete the one critical review. As there was no other comparable, individual writing assignment, it is difficult to make an objective comparison/measurement of student writing for 20171.

How did it work (subjective)? What do you know about the project's results with regard to the learning objectives from subjective testimony, potentially including 1) instructor's assessment, 2) TA assessments, 3) student assessment?

While few students indicated that blogging helped with their writing specifically, many students indicated that blogging helped with their overall learning of course concepts. See Appendix on page 4 for excerpts from student blog posts about their blogging.

For the instructor, the blog assignment was a great source of feedback and insight into students' thoughts on the course concepts. Blogs provided valuable feedback on course activities and indicated which students were engaged with the course topics.

Students were also surveyed at the end of each term to ask about their thoughts on their writing improvements. The responses were generally positive with the majority of students indicating that the course helped to improve their writing. See Appendix on page 7 for 20169 survey results and page 8 for 20171 survey results.

What have you learned? What worked best? What didn't work? What do you know now that you didn't know at the start of the year? How do you feel overall about the project? Did it accomplish the goals that motivated you to propose it?

The blogging assignment worked well for the reasons mentioned above, but students could benefit from early, directed, individual feedback.

Although general feedback was provided to the class as a whole (in the form of selecting and showing exemplary blog posts), students did not receive their blog marks until the end of the term as a mark for their overall blog. As a result, some students missed opportunities to significantly improve their writing between their first blog post and their last - either because they failed to pay attention to the blog posts being reviewed in the lecture or because they could not apply the general feedback to their own writing. More frequent, individualized feedback at the beginning of the term on the blog post (in the form of marks and/or specific comments) may encourage students to better work on improving their blog post writing throughout the term.

What would you change? Do you intend to run this project again. If so, will there be changes to the course and/or changes to the project based on your experience running it?

The UTM Mathematical & Computer Science (MCS) department would like to run this project again and, therefore, would like to apply for the funding again for next year.

For the 2017-2018 academic year, the MCS department is expecting to offer two sections of 80 students each in the Fall term, and one section of 80 students in the Spring term, for a total of 240 students for the year.

We continue to refine and improve the CSC290 course, but will adhere to the following general strategy which has been working well:

- One to two individual writing assignments (eg. a critical review essay),
- Supplemented with frequent, shorter writing exercises (eg. blog posts and/or discussion board posts),
- In combination with one to two group writing assignments (eg. project charter).

20169 Student Comments on Blog Writing

- Throughout this course we have done many blog posts. They were used to illustrate certain concepts of the course to us. Using the blog posts we could reflect on our weekly experiences such as learning how to analyze written work or listening to distinguished speakers. Our blogs reminded us each week of what we learned and helped us to re-evaluate it. They were good practice for helping us think of course concepts.
  …
  The blogs are a great way to learn and always fun to write. I felt established knowing someone cared what I had to write and took time to read it.

- love to read but I was always afraid about writing. Since I come from a family of writers I had a really high bar. I also made a big mistake when writing before, I tried to imitate other people's styles and never found my own. But writing these blogs I realized I liked the simplicity of this format of writing and I actually enjoyed doing it. I just need to polish my own style and find a topic I would like to write about. Therefore, in the future, when all the assignments and exams are a thing from the past, I might start to write my own blog.

- Writing blog posts every week has allowed me to learn in-depth about my writing style, habits, and thinking. But most importantly, it has helped me learn, review, and apply the concepts in real life. For instance, my first blog post about my non-technical skills made me dissect my writing, reading, and speaking skills. This was beneficial because I realized that I enjoyed writing, and speaking. However, my weakness was the readings. By being aware of this issue; I decided to stay on top of them, and as the course progressed, the readings assisted me with learning new material such as UML, parallelism, and dangling modifiers.

  In addition, my blog post about assignment one made me realize that assignment two was going to be a technical task as well. Hence, I had to get started early, and go through a similar process: read it, comprehend it, and form an opinion. By doing the same type of assignment once, I knew what the expectations were, and how I was going to get evaluated. But my blog made me understand the process I had to go through, especially the amount of edits I had to make in order to create a critical review I was happy with.

- But at least I've improved in other areas. I'd say my writing's gotten a lot smoother recently. Maybe it's more noticeable to me (since I'm the one who wrote each post) but my earlier posts seemed a little too mechanical. Almost as if I was applying some formula along the lines of "write passive and exact sentences, then add expressions and tone of voice afterwards", it made the writing experience a lot less enjoyable for me and it didn't feel like the words were really coming from me.

  Now, I write things the way I'd say or think them. It's more expressive and I think it's more fun. So while I don't think this kind of writing is *super* useful for formal write-ups like essays, I can definitely say that I've broken a barrier between me and writing.

20171 Student Comments on Blog Writing

- I really like the blog assignment since it allows students to express their thoughts on various subjects related to the course. I guess it makes it more "fun" than regular assignments since there's more freedom in the sense that you can voice your opinion. I learned a lot while writing these blogs since it allowed me to reflect on the various things I've encountered, and remember those things more clearly. I imagine the blogs as a CSC290 diary, so it's pretty enjoyable to commit to. It allowed me to analyse, critique, and share my ideas. I like that you can voice out your opinion about the course...I feel like the blogs allowed me to express my thoughts regarding the course well and with enough freedom to talk about topics that may not be too closely related to the topic at hand.

- The blog posts were the main source of engagement in the course. Every week we were expected to complete a blog post about some topic relating to concepts we learned in the course – usually some communication skill. In my opinion, the blog posts were helpful in not only getting into the habit of writing weekly (and therefore increasing your proficiency in communication through repetition), but also in collecting your thoughts about the material taught.

- Looking back at my first blog that I wrote more than ten weeks ago, I noticed my wordings were much more precise and formal. Does that imply my writing skills have become worst throughout the semester? Surprisingly, I would say the opposite! I believe that I have successfully grasped the idea of writing blogs instead of formulating essays, where I attempt to show the best side of me by using pedantic words. Now I understand that the importance of writing a blog is not necessarily trying to demonstrate yourself, but the goal is to interest your audience regarding what you are writing. Sadly, I don't think that I have successfully "hooked" my readers in reading my blogs every week, nor do I think my writing style have improved drastically that I could become a famous writer! Either way, writing weekly blogs have encouraged me to practice my writing skills and become a communicator, but there is no doubt space for improvement.

- From everything that we have done in this course, writing blog posts have been the most helpful for me. I've noticed an improvement not only in my writing style, but also in the ability to express myself.

  Recalling my first blog post, I remember having a hard time communicating my thoughts. I initially struggled with being open and expressing myself in the blog posts. Being so used to writing formally in school and university, it was hard to switch gears and change my writing style. At first, I admit that I didn't enjoy writing blog posts as they were a more of a struggle for me. However, by the third or fourth week of class, I developed the habit of starting my blog post about four days before they were due. Over the weeks, I've realized that starting my blog post well in advance has been really helpful by giving me enough time to reflect on the topic clearly. It's also helped me deviate from formal, academic writing and develop a writing style more suitable to an online blogging platform. Now, I'm proud to say that I'm a lot more comfortable writing blogs than I was ever before. These weekly blog posts have made it easier for me to reflect on my thoughts and communicate freely through my writing. Whether or not my blog posts have been exciting or intriguing for the audience, I feel like they have certainly become more personal and self-critical over the weeks.

- As I've mentioned in my first blog post, I regarded writing as a strength. Writing blog posts for the past three months or so has been quite a very different experience for me. I'm used to "academic" or "scientific" writing, which rarely has anything to do with my personal experiences or opinions. The blog has really opened me to a different writing style, and in the beginning of the course, I thought I wouldn't enjoy it. However, as the weeks went by, I'm starting to like it because it's a channel for me to reflect on different experiences and freely express my thoughts. Sitting down to put down out my thoughts in words really encourages critical thinking and reflection, which are important for anyone, not just a computer scientist or an academic. Although I may not have thought everything through for some of the posts and rushed through them, I still think that hour or so each week when I sat down and typed up the post was quite valuable.

- Last but not least are these weekly blog posts. In many ways, they were the most annoying aspect of this course. At first, they were akin to having to go to the doctor every week to get vaccinated. They were recurring and painful. They still kind of are. But then again, I think my natural resistance to this assignment is one of the reasons it was so rewarding in the first place. It's an ironic fact of life that some of the most rewarding activities are also the most painful.

  In the first two weeks of class, I tended to write my posts haphazardly which lead to a lot of unnecessary stress. By the third week of class, I started developing the habit of writing the blog post right after class in the library. At first, I'd spend a good three hours on it which is a testament to my ongoing frustration with my writing process. Now, I'm pleasantly surprised to find that writing these blog posts at the same time every week (and usually in the same location) has been an improvement in every possible way. In the quality of my writing, in how much time I save, and in the increase of incremental improvements in my writing. Funnily enough, they've also been a form of personal therapy.

  The development of this weekly habit is what lead me to think that in addition to the gradual growth in my writing, another benefit to these blog posts was learning to cultivate discipline. Despite time management and habit formation being general success advice nowadays, I rarely felt the impact of that advice deep in my bones. That's why I was so surprised to realize that writing blog posts turned from being a chore into an introspective exercise in self control.

  Every Monday for the past 9 weeks, I would start at 3 PM and finish at around 5 or 6 PM. I think the rare combination of regularity and immediate results really made it sink in. I feel like I've writing these blog posts has been incredibly beneficial in more than just improving my writing. In some ways, I think I understand the age-old proverb "you reap what you sow" a little better now.

- This blog assignment has been a good way to reflect on the course and to realize the intent of what is taught in class. When I write the blog posts, I often reflect on my life and how I can use the skills gained in class in my everyday life. For example, I thought about how I present in front of others and how I can improve my presentation skills. At first I thought I would not like the blog posts, but as I have been writing them, I realize that they are actually very useful. It is one thing to memorize what "I" statements are, but thinking about how I can use "I" statements in future situations really adds to my learning.

Condensed Item Analysis Report

What grade do you anticipate earning in this course?

Response	Frequency	Percent	Mean: 2.00
A 80-100	6	27.27	
B 70-79	11	50.00	
C 60-69	3	13.64	
D 50-59	0	0.00	
F <50	1	4.55	
No Response	1	4.55	

To what extent did the lectures, tutorials, assignments, and exercises in this course help you to improve your writing?

Response	Frequency	Percent	Mean: 2.05
A Lot	5	22.73	
Some	13	59.09	
A Little	3	13.64	
Not At All	0	0.00	
Don't Know	1	4.55	

How much time and energy did you invest in the writing assignments and exercises for this course?

Response	Frequency	Percent	Mean: 1.55
A lot	12	54.55	
Some	8	36.36	
A little	2	9.09	
None at all	0	0.00	

On average, how much time did you spend per week on writing/completing your blog post?

Response	Frequency	Percent	Mean: 2.59
0 min - 20 mins	3	13.64	
20 mins - 40 mins	8	36.36	
40 mins - 1 hour	7	31.82	
1 hour - 2 hours	3	13.64	
More than 2 hours	1	4.55	

The blog topics were interesting.

Response	Frequency	Percent	Mean: 2.55
Strongly Agree	0	0.00	
Agree	12	54.55	
Neither Agree or Disagree	8	36.36	
Disagree	2	9.09	
Strongly Disagree	0	0.00	

The blog gave me a chance to voice discussion/opinions I could not voice in class.

Response	Frequency	Percent	Mean: 3.50
Strongly Agree	2	9.09	
Agree	11	50.00	
Neither Agree or Disagree	5	22.73	
Disagree	4	18.18	
Strongly Disagree	0	0.00	

I am comfortable expressing my thoughts on a course blog.

Response	Frequency	Percent	Mean: 4.27
Strongly Agree	10	45.45	
Agree	9	40.91	
Neither Agree or Disagree	2	9.09	
Disagree	1	4.55	
Strongly Disagree	0	0.00	

Do you think this course should be a required course as part of the Computer Science program? Yes

Response	Frequency	Percent	Mean: 1.14
Yes	18	81.82	
No	3	13.64	
No Response	1	4.55	

Condensed Item Analysis Report

What grade do you anticipate earning in this course?

Response	Frequency	Percent	Mean: 0.77
A 80-100	11	35.48	
B 79-79	16	51.61	
C 60-69	4	12.90	
D 50-59	0	0.00	
F <50	0	0.00	

How much time and energy did you invest in the writing assignments and exercises for this course?

Response	Frequency	Percent	Mean: 1.77
A lot	9	29.03	
Some	19	61.29	
A little	2	6.45	
None	0	0.00	
No Response	1	3.23	

On average, how much time did you spend per week on writing/completing your blog post?

Response	Frequency	Percent	Mean: 2.53
0 - 20 mins	4	12.90	
20 - 40 mins	12	38.71	
40 mins - 1hr	10	32.26	
1- 2 hrs	2	6.45	
More than 2 hrs	2	6.45	
No Response	1	3.23	

To what extent did the Critical Review Essay help you to improve your writing?

Response	Frequency	Percent	Mean: 2.33
A lot	6	19.35	
Some	13	41.94	
A little	8	25.81	
Not at all	1	3.23	
Don't know	2	6.45	
No Response	1	3.23	

To what extent did the Critical Review Editing help you to improve your writing?

Response	Frequency	Percent	Mean: 2.79
A lot	4	12.90	
Some	13	41.94	
A little	3	9.68	
Not at all	3	9.68	
Don't know	6	19.35	
No Response	2	6.45	

To what extent did the Blogging Assignment help you to improve your writing?

Response	Frequency	Percent	Mean: 2.30
A lot	7	22.58	
Some	12	38.71	
A little	8	25.81	
Not at all	1	3.23	
Don't Know	2	6.45	
No Response	1	3.23	

To what extent did the lectures, tutorials, assignments, and exercisess in this course (overall) help you to improve your writing?

Response	Frequency	Percent	Mean: 2.37
A lot	5	16.13	
Some	17	54.84	
A little	4	12.90	
Not at all	0	0.00	
Don't know	4	12.90	
No Response	1	3.23	

The blog gave me a chance to voice discussion/opinions I could not voice in class.

Response	Frequency	Percent	Mean: 3.77
Strongly Agree	7	22.58	
Agree	13	41.94	
Neither Agree or Disagree	9	29.03	
Disagree	1	3.23	
Strongly Disagree	1	3.23	

The blog topics were interesting.

Response	Frequency	Percent	Mean: 3.61
Strongly Agree	4	12.90	
Agree	13	41.94	
Neither Agree or Disagree	12	38.71	
Disagree	2	6.45	
Strongly Disagree	0	0.00	

I am comfortable expressing my thoughts on a course blog.

Response	Frequency	Percent	Mean: 3.90
Strongly Agree	8	25.81	
Agree	15	48.39	
Neither Agree or Disagree	4	12.90	
Disagree	2	6.45	
Strongly Disagree	1	3.23	
No Response	1	3.23	

Do you think this course should be a required course as part of the Computer Science program?

Response	Frequency	Percent	Mean: 1.23
Yes	24	77.42	
No	7	22.58	