Running Head: SELF REFLECTION

Self Reflection: Final Paper Chrystal Mingo CUNY, City College 15 May 2018

Content Page:

Introduction	
Purpose	
Audience	4-5
Genre	6-7
Stance	
Media/Design	8-9
Exigence	
Course Learning Outcome #1	
Course Learning Outcome #2	
Course Learning Outcome #3	14-15
Course Learning Outcome#4	
Course Learning Outcome #5	17
Course Learning Outcome #6	
Course Learning Outcome #7	
Course Learning Outcome #8	
Conclusion	21

Introduction:

Writing has always been a passion of mine; writing has allowed me to escape into the realm where creativity and imagination are unleashed. In my prior class, English 110, I wrote a Literary Narrative, Exploratory Essay, and Research Critical Analysis. I realized my strength was that I could write and express my ideas in a clear and concise manner. However, I also left knowing my weaknesses: incorrect citations, finding credible articles/documents, and punctuation. It's important to know your strengths and weaknesses to be able to truly exceed as a writer. Taking notes of my weaknesses, I promised to improve, while staying true to myself. As an engineer, I believe in being creative and creating things that people would want to use, and in this case, read and enjoy.

On the first day of class for Writing for Engineering ENGL 21007, I was a nervous wreck looking at the syllabus, the words in bold letters "**Technical Description**," "Lab Report" and "Group Proposal" all stood out to me; I was like a deer caught in headlights. Frightened because I've never had to write papers on genres like this, I soon realized to be an engineer, I need to write like one and Professor Carr is teaching me this for a reason. Since I'll have to write papers like this in my career field, better start now than later. I decided to make the best out of this class and I allowed myself to be open to new things.

This class has exposed me to rhetorical terms such as purpose, audience, genre, stance, media/design, and exigence. All these terms are essential when writing a paper, but to me, the strongest papers are written when you have a clear idea of why and who you're writing for. Purpose and audience impact how you showcase your work, the content, and even your stance.

In addition, this course had eight learning outcomes, or goals, that we are expected to reach, and each major assignment would help accomplish multiple or all of them.

Writing for Engineers was not an ordinary class, on the first day I found out I applied to a hybrid class. In CCNY hybrid classes are courses in which half of the time the class meets face to face, and the other half of the work is done online. It was my first time being in a hybrid class and I actually enjoyed it because I got an extra hour of sleep on my busiest days. This class made me work ten times harder on my papers; I even started to think of how I incorporated my rhetorical terms and did I do it effectively. It was a great learning experience, and from the Technical Description to the Proposal, you can see how much my writing has improved.

Purpose:

Knowing your purpose in writing is essential, it is the reason why you are writing. As a writer or author one must always keep in mind the goal of why they are writing this paper and what you are trying to accomplish. Having a clear idea of your purpose in writing influences your content, how you showcase your work, and most importantly one must always remember to provide information that gets the goals across to the reader.

Beginning with my Technical Description, which focused on an item called *Coconut & Hibiscus Curl Enhancing Smoothie*, "my purpose is to help them curl and volumize their natural hair." I will be honest, my purpose in this first paper wasn't strong. I could've put an emphasis on why I was writing this essay on this specific product. Which was because it's a product I use myself and see that it helps to enhance and volumize my natural hair. In addition, inform the readers about the benefit that comes from using this product.

As always one improves and becomes a better writer with practice, and in my lab report, my purpose I believe was clear. "My purpose in writing this is because I myself am a computer scientist, and we all have worries about our ability to learn all of the languages. In this report I show that all coding languages have families, once you know one learning the next one becomes easier." In the same way for my Group Proposal focused on proposing the expansion of CBTC in the NYC Subway system. "My purpose, as a computer scientist, I believe in the future, making things more efficient, and finding ways to incorporate computer science in everything...this proposal is to help the MTA realize the need of expanding to CBTC, throughout NYC Subway stations, beginning with the MTA's most used lines, first prioritizing the IRT Lexington Avenue (4)(5)(6) lines, and the IND Queens Blvd (E)(F)(M)(R) lines."

From when I first began this class, my idea of purpose reached new heights. I was able to understand that *why* you write plays an important role in your paper as a whole. In my first paper, I didn't really have a clear idea of why I was writing, but I knew I wanted to be creative, and I wanted to inform the class about a product I use and love. Just by having an idea, something you want to get across to the class or other individuals, it all connects back to purpose. Now I take a step back and see how much my purpose has grown throughout each paper, and the reason *why* also changes in each paper, but there's always going to be a reason behind why you're writing and a point or goal you want to accomplish with that piece.

Audience:

As a writer one should always keep in mind their audience, which represents the individuals who can possibly read their work. An audience varies and can expand drastically, depending on what platforms you share it on, if you specifically give it to an instructor, it can

even be your classmates, or someone unknown. Audience is important when writing papers. As an engineer, we must do research on the individuals reading our work to formulate our content, word choice, media, and figure out how to effectively accomplish the purpose of the paper.

In my technical description, I had a clear idea of who my audience would be - I had a section specifically on the first page of the paper stating the audience, "This is targeted to both men and women of all ages, looking for easy, effective, and a natural product that helps volumize and maintain their hair. Especially individuals with curly hair ranging from 2A to 3C." In the Lab report, I had a different audience to that of my technical description, "My audience is computer scientist, or individuals planning to come into the field or have an interest in programming." In the Group Proposal, my audience varied again to my previous papers, "My audience focuses on the leaderboard of the MTA, the people who have authority in the MTA, such as the sponsors, investors, the CEO, the executive who will invest in the expansion. In addition the passengers who use the train on a regular basis, who wants to know what the plan is, and how it will impact them."

For each paper audience varied, however, there was someone reading it, and what I wrote for the technical description wouldn't be the content I used to persuade the MTA in my group proposal to upgrade. In this class, I learned audience impacts your content, media, stance, everything because the reader is the person you are trying to influence to support your work or idea. Therefore as an engineer, one must do their research, and be aware of who their audience is and what knowledge they have. In my papers, knowing who my audience was helped me to better outline and structure my work and decide which information was important or didn't need to be discussed based off of their credentials.

5

Genre:

I found the genres in Writing for Engineering ENGL 21007 quite challenging. A genre is a category of literature; based off of certain styles and similarities papers are grouped into different genres. Genres can vary from assignment to assignment, the first being the diagnostic paper which needed no factual evidence, it was more of a narrative. However, in the other papers written, based off of other genres, I realized all of them involved an extensive amount of research, for an engineer to be credible in his or her writing.

Technical Description was the hardest genre for me to comprehend. I actually enjoyed writing this piece, but I confused the genre with an instruction manual paper. This confusion resulted in me doing my paper the wrong way. I wrote about 3 homemade hair mask, and after my instructor reviewed my first draft, she highlighted the fact that I needed to write about one product not multiple. "After doing some research, I realized it's all about being able to focus on one product and inform an audience about its purpose, what it is, and how it works."

The second genre which was a lab report is specific and follows a certain format. Since I've written essays like this before, I was more comfortable and had a clear idea of what was expected for the report, we also went over the components in class. "The genre of this assignment is lab report. A lab report is a formal record of an experiment. My assignment follows this genre, because I conducted an experiment focused on testing C++ students ability to identify a snippet of python. It had all the components of a lab report: abstract, title, introduction, materials, methods, results, discussion, and conclusion."

Last but not least, the group proposal and presentation was a combination of genres - oral presentation and a written proposal. In my paper, I made it clear and defined what is a proposal,

the idea we were proposing, and the components of this specific genre. "The genre of this assignment is a proposal. A proposal is a written plan or suggestion. My assignment follows this genre, because it was focused on proposing the expansion of CBTC in the NYC Subway system, suggesting it as the best way to improve and modernize the train systems of New York. This proposal included an abstract, statement of need, project plan, evaluation, and budget."

The genre was a challenge because it wasn't a format or style of writing I was used to. However, seeing templates and other papers, the idea and expectations become clearer. This class has exposed me to new genres, expanding my ability to write, and help me practice pieces of works that I'll need to write on a regular basis as an engineer in my career.

Stance:

Stance represents the attitude of the writer towards the topic he or she is writing about. As a writer, we have opinions on certain topics, and in our writing, we make clear what point we are supporting. However, as engineers, I realized we are very open to new ideas, and as such we find it hard to choose a side. In my writing I noticed stance wasn't my strong point I'd be confused on what my stance was, I looked at it more as tone instead of an attitude.

As shown in my Technical description, "My stance was an informative one, but also friendly, and my vocabulary was very straight forward, and everyone could understand the words." My stance was quite clear in my Lab report "My stance on the subject, was to prove that a computer scientist has the ability to identify a snippet of python code, with only the background they have in C++." In the Proposal, I also focused on the tone of my writing more so than attitude "My stance on the subject, was shown in my writing as a persuasive, and informative one." As I look back on my papers, I realized I could've been more specific on my attitude. For the technical description, my stance would be *Coconut & Hibiscus Curl Enhancing Smoothie* is hands down the best product to maintain and volumize curls. My lab report was clear about my stance on it being easier for a computer scientist to learn other programming languages once they master one. For the Group Proposal, I should've specified my stance that CBTC is the best choice for signal modernization in NYC subways. Before I didn't have a clear idea of what my stance was, I chose more of a tone than attitude, and now at the end of the class looking back, I finally understand what stance is, and what my stance was.

Media/Design:

Appearances matter, especially when showcasing your work to the reader. The audience comes back into play when it comes to Media and Design, you need to decide how you want to present your work to effectively persuade and catch the interest of your audience. Work can be presented digitally on various platforms, or even in print. What I noticed with print is that you can limit how many people get access to view your work compared to that of a digital platform. An example that I always think of when it comes to Media is that Audience influences your format, for example, if you are presenting a powerpoint presentation to elderly people who are kind of blind and deaf, you should make the font size bigger and use a microphone. One must think of the most effective ways of showcasing one's work to be able to get one's point across.

In the technical description, I'll be honest I missed the idea of media in my paper. Now looking back I realize my media was both print and online, peer reviews were print, and final was printed, and discussion for the idea was done online. For the lab report "The media of this assignment is both digital and print." in addition "final paper is to be submitted online and

printed out to hand in to the instructor." Last but not least for the Group Proposal, "The media of this assignment is both digital and print." also, "We did the powerpoint online using Google Slides, in addition we did an online peer review, in which we submitted our work on blackboard" and, "This final paper is to be submitted online, and printed out to be handed in to the instructor."

For the most part, class work was done digitally and in print. For the technical description, peer reviews were in print. However, for the Lab Report and Group Proposal, peer reviews were done online. In my opinion, the most efficient way to get ideas across and discuss in this class was through blackboard. My audience, for the most part, were young and had no difficulty hearing or seeing, therefore font size was standard, and media online regularly used was blackboard, google docs, and google slides.

Exigence:

Out of all of the rhetorical terms, exigence was the easiest one for me. Exigence is the reason behind why you're writing, it's what makes you take action, and type your heart away. It's the idea that motivates you to write, for most people it would be to get a grade in English. However in my eyes each paper, I wrote for a reason, either it is to stay true to myself and be creative in a class of engineers.

For the technical description, my exigence wasn't stated, but I explained what made me write and it's ludicrous how a conversation with my roommate lead me to write. "we started talking about my natural hair, and all of a sudden we said together "hair" focus on the hair product called Shea Moisture Coconut & Hibiscus Curl Enhancing Smoothie and how it works to volumize curls and maintain it." For the lab report, it was an experience I had in class that lead to my great experiment, "My exigence, reason for writing, came from an experience I had in my C++ class. I was in class it was my first time being exposed to C++, however, I did know python. In class while learning the syntax I'd connected the dots, for example print in python is cout in C++. Both do the same thing yet, are called differently for each program. My interest lead me to do some research on languages and one's ability to learn them."

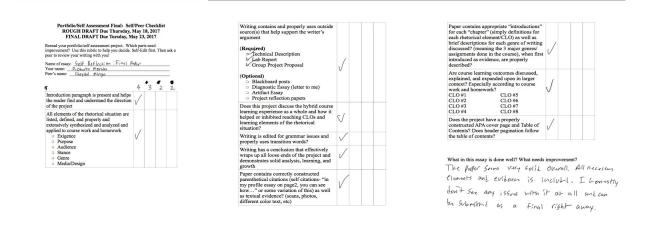
On the other hand, for my Proposal, the reason for writing was because I believe in solving problems, and maybe proposing this idea might not only benefit me but millions of MTA passengers. "My exigence, reason for writing, came from being a user of the New York train subways. I use the train everyday, and it's a great way to get from place to place, especially if you don't know how to drive. However, I have to admit I face delays on a regular basis, and when I get a sit I feel like I hit the jackpot. As a result we wrote this proposal in hopes of fixing the problem, and persuading the MTA New York train system to finally expand to CBTC, their signaling after 50 years, needs an upgrade."

My reason for writing is based on experiences, a deep want to be unique, and different, while also using my problem-solving skills as an engineer to make an impact. Each paper so different, even though the reason for writing began for a grade, these papers I wrote because I was passionate about the topic at hand and as a result, they took a deeper meaning to me as a writer.

Course Learning Outcome #1:

Acknowledge your and others' range of linguistic differences as resources, and draw on those resources to develop rhetorical sensibility.

Feedback is fundamental to improve your writing, to figure what's missing, needs improvement, all in hopes of creating a strong piece of writing. I always say teamwork makes the dream work, through peer review, and communicating with everyone in class on Blackboard, this goal was accomplished. We all have our strengths and weaknesses, by reviewing each other's work we were able to give feedback on what rhetorical concepts were missing and even fix grammatical errors. As shown in Peer Review for my Final Paper (Self Reflection) by Roberto:



For this class, we did both online and in print peer review, the technical description was the one done in class. When giving feedback in this class as shown above we had to write one or multiple paragraphs justifying why we gave them that grade and giving feedback on what needed work. The peer reviews allow us to showcase our work to an audience, a wide range of engineers, and we learn from each other's works, what worked well, and what needed improvement.

Course Learning Outcome #2:

Enhance strategies for reading, drafting, revising, editing and self-assessment.

Using the feedback given from peer review, in addition to revising each of my papers, I was able to reach this course learning outcome. This is something, I learned to do last semester in my previous English class, therefore accomplishing this goal was quite easy. It's a habit of mine to always revise my work before submitting, but there's a mistake that I won't be able to catch that my peers would inform me to fix. Below are the edits that I did to my lab report based off of feedback given by my group.

For all my drafts, I made an outline in five minutes to structure my ideas and plan out what I'd put for each paper. In this class, since I'm an engineer in the making, a lot of research needed to be done and through peer reviewing my classmates work, a lot of reading was done, in addition to the chapter work given. Self-assessment was accomplished by writing self-reflections after each major paper. Reflecting on the idea if I effectively used all the rhetorical terms, in addition, reached the course learning outcomes. Every page of my work I revised and edited before submitting the final paper to my instructor as shown below:

(ON THE NEXT PAGE)

Abstract:

This experiment is testing the ability of computer scientist to identify, and use their problem solving skills to predict outputs of different coding languages. Research shows that once an individual knows one coding language, learning another becomes easier. To prove this theory, I decided to focus in on C++ students and challenge them to identify a snippet of python code. In this experiment there were two samples of code, a hundred students participated, who have only been exposed to C++, and tried to guess the output on their own within five minutes. The results were astonishing, in the first snippet for every 19 students that guessed the output right there was 1 participant who guessed wrong. In snippet two, for every 4 right there was 1 participant who guessed wrong. In both cases more than 50% of the C++ students guessed correctly. The results showed that a majority of C++ students able to correctly decode the python snippets, without having any prior knowledge about python or help. Furthermore supporting the theory that computer scientist can adapt and learn new languages easily, if they master at least one. All coding programs are connected in some way, just like the languages we speak, the root is latin and in computer science the root is C. My test wasn't perfect because it didn't test multiple coding languages at once, however it did prove that knowing one coding language, can be used a foundation to learn and predict other outputs.

Introduction:

The world is revolutionizing, with change improvements in technology comes a bridge from from the old, and in with the new. As a computer scientist you can't predict the future, or which language will the next big thing in 2050. You have to be able to adapt to change, learn different programs, and be open to the idea of problem solving. A computer scientist needs to be adaptable because they are required to learn a wide range of programing languages, as well as be open to new ideas when it comes to problem solving. Some things just never stay the same, imagine if at work you used C++ for years, then Python came along and was more efficient. You'd have to adapt to the change in the workforce, and learn this new language. This got me thinking, computer scientist can't master every program language, there are several such as: Java, Python, C++, Ruby, PHP, and the list goes on and on.

My first programming language was Python, being exposed to the basics, helped me understand and identify the outputs of C++, which I am learning now in CSC 103. I realized for me that having some background knowledge on at least one eodingprogramming language, made it easier to understand C++. I just had to connect the dots, and learn the correct syntax. I remember learning some things such as "cout" is the same as "print" in python, my brain would automatically find similarities between them and help me figure out the product product. According to CodersEye, states "the skills you acquire from learning a language to fluency can carry over into any other language" (CoderEyes, 2016). I want to test if my classmates, future computer scientist, if given a snippet of python can guess the output. In this experiment, I believe more than half of my classmates will figure out the correct output.

Course Learning Outcome #3:

Negotiate your own writing goals and audience expectations regarding conventions of genre medium and rhetorical situation

In my writing, I always keep in my mind my audience. Although there were shifts in my genres, my goal was still the same - to be unique, and create something my readers will enjoy. My goal in my first paper was, "I love being unique, never a copycat, always original." Keeping that in mind, I ensured I stayed true to myself, making my papers interesting, but still connect back to my career field, with the exception of the technical description.

The first assignment to my instructor had more of a letter and narrative tone, shifting towards technical description I found the approach to this genre different from most previous writings and adjusted to it. Even in the group proposal, the written version versus the powerpoint content was less dense and more focused to keep the audience's attention. Even when writing as an engineer, I realized you can write about anything you want, but one must keep in mind their audience and if they are reaching all the rhetorical terms in the work. I feel like I learned to write like a credible engineer, while also staying true to myself and being unique, as shown below.

Even though I was talking about a curl enhancer in my technical description because it was my favorite product, I did my research to have more factual than opinionated information in the technical description. One of my goals was to further expand my writing as an engineer and I accomplished that goal. By exposing myself to new genres, practicing the rhetorical terms, I strengthened my writing.

References

Aarhus, K. (2017, September 18). Simple Coconut Oil Treatment for Damaged Hair, Dandruff and More. Retrieved February 22, 2018, from

https://www.liveabout.com/coconut-oil-hair-treatment-3517796

- Bosworth, K. (2017, July 18). Damaged Curly Hair. *Live Strong*. Retrieved February 22, 2018, from https://www.livestrong.com/article/314442-damaged-curly-hair/
- Bright, S. (2017, June 28). 13 Reasons You Need To Try Shea Butter Today. Retrieved February 25, 2018, from http://www.naturallivingideas.com/shea-butter-benefits
- Brunson, N. (2012, March 15). All About Different Types of Proteins in Hair Products. Retrieved February 25, 2018, from <u>http://urbanbushbabes.com/all-about-different-types-of-proteins</u>
- Hairfinity United States Blog | Neem oil for hair: a how-to guide. (2017, May 16). Retrieved February 26, 2018, from

http://www.hairfinity.com/us/en/Neem-oil-for-hair-a-how-to-guide/

Hawkins, L. (2013, October 28). [NATURAL HAIR NOW] The 5 Sweet Benefits of Honey. Retrieved February 22, 2018, from

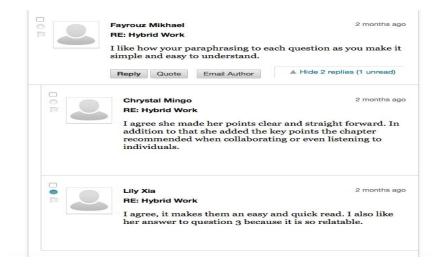
http://www.ebony.com/style/natural-hair-now-5-reasons-honey-benefits-natural-hair-883

Kothari, K. (2017, July 25). Top 15 Benefits Of Hibiscus Oil For Hair. Retrieved February 25, 2018, from https://www.fashionlady.in/top-benefits-of-hibiscus-oil-for-hair/69657

Course Learning Outcome #4:

Develop and engage in the collaborative and social aspects of writing processes.

In this class every paper written was very collaborative in the sense we always got feedback from each other to further strengthen our work. This was seen through peer reviews, blackboard became the hottest form of social media for us, students, to discuss, and share ideas on what worked and didn't. The most collaborative project, was the group proposal, I made new friends as a result, we used google docs as another platform to write collaboratively, give comments, and get the work done. Every hybrid homework had a part in which we had to comment on three people's ideas, and make 3 comments on a comment of a comment. It was interesting to see how everyone worked together and answered questions. Other collaborative moments in the class were when we as a whole class, made comments and analyzed "how to make curtains" for the technical description and also the Hughes poem "Theme for English B." This class was truly collaborative in every aspect when it came to writing, giving feedback, and as a whole uniting the class. I'll show one example from blackboard below in which the student uploaded their work and we made comments and had a conversation on Blackboard:

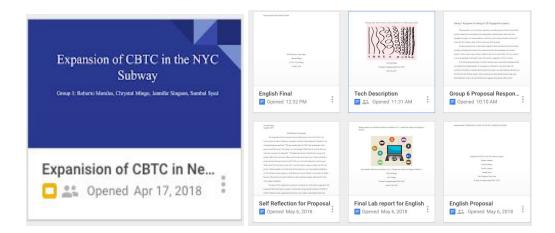


Course Learning Outcome #5:

Engage in genre analysis and multimodal composing to explore effective writing across disciplinary contexts and beyond.

This course learning outcome was reached by being exposed to different genres specific to writing for engineers such as technical description, lab report, and proposal. Analysis of these genres was conducted through reading chapters from Markel, looking at templates/models of genres, and in class our instructor would have a powerpoint presentation in which she would break down the components of each genre. In addition, we looked at rubrics to get an idea of what we would be graded on/expectations for each genre.

The multimodal work was accomplished since work was done and submitted through different platforms. The powerpoint presentation for our group proposal helped to enhance our oral presentation using google slides. Submission for final papers varied, for the technical description it was in print, for the lab report it was both email and blackboard, and group proposal was in print and sent through email. We got exposed to oral, print, and digital media, this one class thought us how to write and also present as engineers, and get used to submitting and presenting work in multiple ways.



Course Learning Outcome #6:

Formulate and articulate a stance through your writing.

Stance is a very important rhetorical term, that should be clearly represented in one's work. Each assignment required us as engineers to take a stance, as a class we struggled with composing a clear idea of what our attitude towards the topic was. Stance is your attitude, I looked at it more as the tone in which you presented your work. In my technical description, I didn't specify my stance on the topic, I explained that I used more of a friendly tone, informative, but never choose my stance on the product. Looking back now my stance for the technical description should've been that the product *Coconut & Hibiscus Curl Enhancing Smoothie* is hands down the best product to maintain and volumize curls.

On to the next assignment the Lab report, my stance was clear and specific - I stated my attitude and opinion on the topic. "My stance on the subject was to prove that a computer scientist has the ability to identify a snippet of python code, with only the background they have in C++." For the proposal, I explained my stance was a persuasive and informative one towards the MTA, even though this focused on tone. My stance is clear that I will use persuasion and background to showcase that CBTC is the best option for the MTA in NYC subway stations. I needed to actually choose a side, and now at the end of class I able to formulate a strong stance for each of my previous papers. As shown above, in each paper, I formulated a stance, although some were weak, now I look back and have a clearer idea as an engineer what stance is.

Course Learning Outcome #7:

Practice using various library sources, online databases, and the internet to locate sources appropriate to your writing projects.

In Writing for Engineering ENGL 21007, we took one day to meet up at CCNY Newman's Library. On this day, we meet with a librarian Ty Hoffman who went through a powerpoint presentation teaching us how to use the library databases in order to complete research for lab report and proposal. We also learned how to execute searches online using specific jargon or keywords. Ty showed us all the databases, which ones were the best to use, and most appropriate for writing. It was on that day we learned everything we needed to know as engineers to find credible sources using databases. Below is the reference page for my lab report:

Can a Student Who Knows the Basics of C++ Identify the Output of a Snippet of Python? 6

Reference:

Miller, B., & Ranum, D. (2005). 1.3. What Is Computer Science?[¶]. Retrieved March 14, 2018, From

http://interactivepython.org/runestone/static/pythonds/Introduction/WhatIsComputerScie

Shaw, Z. (2013, September 19). Exercise 1: A Good First Program. Retrieved March 14, 2018, from https://learnpythonthehardway.org/book/ex1.html

What Programming Language Should I Learn First? - Coder's Eye. (2016, December 08). Retrieved March 14, 2018, from

https://coderseye.com/learn-which-programming-language-as-beginner

Van Rossum, G. (1977). Comparing Python to Other Languages. Retrieved March 14, 2018, from https://www.python.org/doc/essays/comparisons/

Course Learning Outcome #8:

Strengthen your source use practices (including evaluating, integrating, quoting, paraphrasing, summarizing, synthesizing, analyzing, and citing sources)

In this class, I was exposed to a new format of citing known as APA (American Psychological Association) which is a format commonly used to cite works in my career field of engineering. Since High School I was used to following the MLA citation format, therefore getting used to APA took some time. However, Owl Purdue and a presentation given in class of citing using APA helped an abundance on getting clarification of what is expected for my papers.

In all my papers, from the Technical Description to the Group Proposal, all work was done and cited using APA format. As a result, I was able to strengthen my ability to cite sources, integrate them into my writing by either paraphrasing or using transition words to smoothly combine the sentence with the quote. I consistently used both in-text citations, and followed the APA format using the running head, in addition to adding a reference page in each paper. As always through peer review if my citations were wrong, students would say "needs work", but usually I'd get "excellent" for following the APA conventions. Below is Group Proposal running head and citation of an image using APA.

Running Head: EXPANSION OF CBTC IN THE NYC SUBWAY SYSTEM	

Year	Capital Cost	Maintenance cost	Central Control Operator	Portal Supervisors	Vehicle
1	\$ 116,390,000	\$ 805,000	\$ 300,000	\$ 900,000	\$ 76,273,080
5	-	\$ 906,035	\$ 337,653	\$ 1,012,958	\$ 85,846,024
10	-	\$ 1,050,342	\$ 391,432	\$ 1,174,296	\$ 99,519,069
15		\$ 1,217,635	\$ 453,777	\$ 1,361,331	\$ 115,369,877
20	-	\$ 1,411,572	\$ 526,052	\$ 1,578,155	\$ 133,745,307
25	-	\$ 1,636,399	\$ 609,838	\$ 1,829,515	\$ 155,047,468
30		\$ 1,897,035	\$ 706,970	\$ 2,120,909	\$ 179,742,509
NPV	\$ 116,390,000	\$ 18,530,000	\$ 6,900,000	\$ 20,710,000	\$ 1,755,450,000

|Figure 3: Cost for FBTC in a 5 year Interval

Conclusion:

Overall, this class pushed me to new limits and exposed me to new genres in which, I'd have to write in my career field as an engineer. I actually think about the rhetorical terms in my writing, questioning myself have I effectively combined all of them in my papers. The coursework in this class involves a lot of communication, and feedback is what made my final papers much stronger pieces. I was exposed to oral, print, and digital media. In this class I realized engineers need to do their homework, research is fundamental, one must even do their research on the audience. It was a great class, gave me a few headaches but I love a challenge, and in this class, there was always work to do. As a student, I feel like I reached my goals in this class, I can say I stayed true to myself - unique, and enjoyed everything I wrote. Additionally, I wrote like an engineer, looking for credible sources, and overall collaborating with my classmates, which showed me that as an engineer I will have to work with people, share my ideas effectively, what better way to start and get feedback than with a classroom full of engineers.