
Content Analysis of Your Writing | 4500.001

To: Dr. Z

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Executive Summary

This report analyzes different content analysis strategies to determine one main topic question, “Does the quality of my writing change based on if I’m writing about AI related academic writing topics versus non-AI related academic writing topics?”

In order to answer the topic question, I took five different pieces of writing content from my AI related classes and five different pieces of writing content from my non-AI related writing classes and put them through three different processes to determine quality and tone. The first analysis consists of putting my content through Datayze’s readability analyzer.

The second analysis I put the content through was an application called AntConc by running a list of hedges and boosters, from a Piktochart fact sheet, through the tool so it could identify the amount of hedges and boosters within my two data sets. I then took the amount of hedges and boosters per dataset and applied an equation to determine the average amount of hedges and boosters per 1000 words. Lastly, I took the top three hedges and the top three boosters from each data set and, using the fact-sheet, to determine my writing tones.

The comparative analysis shows my writings have a change in tone and style when writing about AI-related content versus non-AI related content. The findings show my academic writings have college level readability and my non-AI related writings have less technical writing and more understandability to general audiences.

The final finding was that the hedges and boosters analysis revealed that my AI writing voice has a good balance between being cautious and confident/persuasive. The tone analysis also shows that my content is confident with the content being more generalized in the AI-related content versus the non-AI related content.

Some of the limiting factors of the report were not analyzing further into each of the hedges and boosters and would recommend further analysis for higher quality results. Overall, the report displays a solid self evaluation and display of writing quality and tone analysis using a range of data analyzation techniques.

Introduction

Throughout my time as a technical communications major, I have developed my writing skills to try and incorporate as many techniques as I can into my writing style. As I approach my final semester in college, I came across the realization that my writing style might be influenced by the topics being written about.

Report Purpose

This report evaluates the creation and results of a content analysis based on selected academic writings of my choice. The goal of this report is to understand my writing habits, style and stylistic tendencies.

Rational

Recently I have been involved in more artificial intelligence (AI) related courses this semester. The topic of AI in technical writing is a relatively newer one, considering the AI certificate the AI specific classes are for was only introduced last fall semester. Because AI is such a new topic in technical writing, the classes I'm taking for the AI certificate can seem redundant or not as involved, thus making AI not my number one pick when it comes to academic writing topics.

This made me wonder if my academic writings about AI related topics influenced my writing style and the quality of my writing. For this report, I decided to put that to the test and see if I can improve my style based on the results.

Content Question

The chosen writings are based on their ties to a topic question of my choosing.

The content question I chose for this report is:

- Does the quality of my writing change based on if I'm writing about AI related academic writing topics versus non-AI related academic writing topics?

Methods

In order to evaluate the content, I first had to acquire the content for the analysis. The content consists of ten different writing samples, five of them being AI related and the other five not related to AI. I decided for each group of writing samples to have one longer sample and the rest shorter samples for some variation.

Data Collection

I took all of the writing samples and converted each PDF into TXT files for a better display of the writing content. I created a folder named “Acker-Content” and transferred all of the files into the folder. I then re-named each file and numbered and labeled them based on classification.

For my five AI related samples, I incorporated:

- Two reflections
- One report and,
- Two memos

One of the memo writing samples is longer than one thousand words compared to the rest of the academic writing samples which are below one thousand words.

For my five non-AI related samples, I chose:

- Two reports
- One memo
- One reflection and,
- one proposal.

The proposal is over one thousand words while the rest of the academic writing samples are under one thousand words.

All of the file names were then transferred to an Excel spreadsheet (see Appendix A) in a column labeled “TextFile Names”. The next column named “Text Register” displays the types of writings each sample is labeled as, all of them being academic writings. The next column shows the “Date Posted” of each academic writing sample and the next one shows the word count of each sample.

The next column I created was “Topic Category”. I chose the category based on what was in each assignment's description. The last column is titled “Intended Audience” where I displayed the name of the professors each writing sample is associated with.

Resources and Tools Used

The list of tools and software I used for the content analysis were:

- File Explorer
- Excel
- Piktochart Fact sheet
- Datayze and,
- AntConc.

Analysis 1: Procedure

The evaluation criteria consists of two types of evaluations. The first evaluation is a readability analysis review of my AI academic writings and non-AI academic writings. This readability analysis will come from the online tool Datayze.

I first created two tables to display the results of the AI related content and non-AI related content after running each writing sample through the readability analyzer. In order to do this I had to individually copy and paste all of the content from the TXT files into the analyzer.

In the tables, I put the results of each writing's Flesch Reading Ease Score. “The Flesch score uses the number of syllables and sentence lengths to determine the reading ease of the sample. A

Flesch score of 60 is taken to be plain English. A score in the range of 60-70 corresponds to 8th/9th grade English level. A score between 50 and 60 corresponds to a 10th/12th grade level. Below 30 is college graduate level.” (Datayze, 2025)

I then put the results of each writing’s Flesch-Kincaid Grade Level Score. “The Flesch-Kincaid Grade Level heuristic indicates that the text can be read by the average student in the specified grade level.” (Datayze, 2025)

Lastly, I put the results of each writing’s Dale Chall Score. “A score of 4.9 or lower indicates the passage is easily readable by the average 4th grade. Scores between 9.0 and 9.9 indicate the passage is at a college level of readability.” (Datayze, 2025)

Each analysis result was then inputted into the three column sections aligning with the content names.

Analysis 2: Procedure

In the second analysis, I uploaded my AI and non-AI files separately into a word analysis application called AntConc to analyze the hedges and boosters of all ten writing samples. After uploading the content, I copy and pasted a word list filter through the advanced search feature. This list consisted of different hedges and boosters for AntConc to filter my writings and find how many (hits) of each word is throughout my samples.

Then, through the “word” tab in AntConc, I could see my results of how many hits I had of each word from the list and how many words each contributed to the hit count. I then created two excel sheets and made a table on each sheet.

The first column for the AI related writing content sheet was the “Hit #” that displayed the amount of times each word from the list was found in the selected writings. The second column called “Context” displayed each found word from the list. The last column called “Hedge/Booster” consists of whether or not the word is a hedge or a booster. To determine whether or not the word was considered a hedge or a booster I reviewed each word through a hedges and boosters Pinktochart fact sheet.

I proceeded to do the same for the non-AI related content. After both tables were created, I counted up all of the hedges and boosters for both sets of data to determine the average number of hedges and boosters per 1000 words, because each set of data had different total word counts.

The data for my AI related writings have a total of 3294 words. So, I took the number of hedges (23) and divided that number by the wordcount (3294). I then multiplied that number by 1000 to determine the amount of hedges per 1000 words of my writing. I repeated this process for the AI related content’s boosters and the non-AI related content’s hedges and boosters as well.

The formula is:

- Hits/Word Count x 1000

I displayed these results into two separate tables. For the last set of data, I chose the top three present hedges and the top three boosters of the non-AI related data set and made a chart displaying them. I then chose to evaluate the tone of each hedge and booster, based on the Piktochart factsheet, and put the results in another column called “Tone Type”. I proceeded to do the same process for the AI-related content.

Results

These results will display the findings from both analysis one and analysis two. Each set of data conveys a certain type of result based on data from the initial ten writing samples.

Analysis 1: Results

Table #1 below displays the results from the Datayze readability analyzer. The Flesch reading Ease Score shows my writings ranged from a 48.29 to a 59.35, making the readability score overall around mid-range. According to the Flesch Reading Ease Score, this indicates my writing is on the more difficult to read side.

The Flesch-Kincaid Grade Level Score shows a range from 8-12, indicating my writings are around college-level. This range shows the same conclusion that the Flesch Reading Ease score did. Even though the range shows a slight difference in grade level in comparison, my writings are around the same levels of readability even with the different content types.

The Dale Chall Score gives us a range of 8.77-9.26. This is also consistent with the other readability tests as this range indicates the reading level is closer to a college level readability score.

AI-Related Content Names	Flesch Reading Ease Score	Flesch-Kincaid Grade Level Score	Dale Chall Score
1_AI Comparison.Senior	59.35	8.25	9.18
2_Testing AI Against the Rules.Senior	48.29	12.22	9.16
3_AI Literacy in Action.Senior	55.29	10.06	8.77
4_AI-Enhanced	50.61	9.23	8.95

Self-Evaluation of Technical Writing.Senior			
5_Exploring Large Language Models.Memo.Senior	55.27	8.71	9.26

Table #1: AI Related Datayze Data

Table #2 shows the results for my non-AI related content readability analyzer data. The Flesch Reading Ease Score displays a range of 45.14-68.22. Indicating the content to be around the fairly-difficult and difficult categories.

The Flesch-Kincaid Grade Level score ranges from 7.74-11.37 indicating a mid to lower level of readability. The Dale Chall Score ranges from a 7.5 to a 9.34 which is consistent with the Flesch-Kincaid Grade Level score, which is standard to more difficult.

Non-AI Related Content Names	Flesch Reading Ease Score	Flesch-Kincaid Grade Level Score	Dale Chall Score
6_Internship Reflection.Senior	54.92	9.38	9.12
7_Mid-Term Status Report.Junior	64.44	7.93	8.6
8_Personal Interview Report.Junior	52.01	9.18	8.4
9_State Fair Proposal.Junior	68.22	7.74	7.5
10_Thoughts on the Business Proposal Reflection.Senior	45.14	11.37	9.34

Table #2: Non-AI Related Datayze Data

Analysis 2: Results

The result of the AI-related AntConc hedges and boosters analysis resulted in 58 word hits (see Appendix B). The total number of different words present in the content is a variation of 15 different words.

The non-AI related AntConc hedges and boosters analysis resulted in 70 word hits (see Appendix C). The total number of different words present in the content is a variation of 21 different words.

Table #3 shows the total number of hedges and the total number of boosters throughout the AI-related content. After the calculation, to determine the average amount of hedges or boosters per 1000 words, the result is 6.98 hedges per 1000 words and 10.62 boosters per 1000 words.

Variable	Hits	After Calculation
Hedge Count:	23	6.98 hedges per 1000 words
Booster Count:	35	10.62 boosters per 1000 words

Table #3: AI-Related Data Averages

Table #4 shows the total number of hedges and the total number of boosters throughout the non-AI related content. After the calculation, to determine the average amount of hedges or boosters per 1000 words, the result is 6.16 hedges per 1000 words and 10.42 boosters per 1000 words.

Variable	Hits	After Calculation
Hedge Count:	26	6.16 hedges for every 1000 words
Booster Count:	44	10.42 boosters per 1000 words

Table #4: Non-AI Related Data Averages

The last result section evaluates the tone of the top three hedges and boosters from the two sets of data based on the categorizations provided from the Piktochart fact sheet.

For the AI content, Table #5 shows that two of the top three hedges fall into the “Generalized Information” category and the other one falls into the “Cautious” category. Lastly, the top three boosters all fall into the “Express Certainty” category for their tone.

Top Three Hedges	Tone Type	Top Three Boosters	Tone Type2
Would	Cautious	Will	Express Certainty
Rather	Generalized Information	Certain	Express Certainty
Quite	Generalized Information	Definitely	Express Certainty

Table #5: Non-AI Related Data Averages

For the non-AI content, Table #6 shows that the top three hedges fall into the “Cautious” category and, like the AI-related content, the top three boosters also fall into the “Express Certainty” category.

Top Three Hedges	Tone Type	Top Three Boosters	Tone Type
Would	Cautious	Will	Express Certainty
May	Cautious	Certain	Express Certainty
Around	Cautious	Really	Express certainty

Table #6: Non-AI Related Data Averages

Discussion

According to the readability analyzer, my writings for AI related content have college level readability scores. Since these writings are academic and intended for my college classes, I feel like that is to be expected. However, this could be a slight concern if these writings were intended for a general audience, a high readability score suggests I should improve on my plain language techniques to better the reader accessibility aspects of my writing style.

For the Flesch-Kincaid grade level score, while the results were all fairly similar, the scores for the non-AI related papers were all generally lower scores in comparison to the AI-related content. This could suggest that my non-AI related writings are less technical and more understandable to general audiences compared to the AI-related writings.

Although my topic question isn't discussing whether or not my writings are affected by interest in the topic or if I was rushed with writing, there was an outlier piece of writing content that was consistently messing with my data throughout. The "9_State Fair Proposal.Junior" file scored significantly low on the readability analyzers.

I remember being rushed to do the paper and I did not like the topic of the writing at all. The results showed this piece of writing to be significantly lower on the Flesch-Kincaid Grade Level score with a 7.5 as a result versus the Flesch Reading Ease score of 68.22. This can indicate that I did not have the time to input higher quality words and incorporated more general statements throughout the writing.

This could be something I keep in mind the next time I write. I should have probably picked a better piece of content instead of that one so the data is consistent with writing topics I did enjoy that were non-AI related. Overall, these scores display a slight increase in readability in Non-AI related content versus AI-Related content.

For the AntConc analyses, the two initial word hit counts were drastically different numbers, with the AI-related content being 58 and the non-AI content being 70. However, the word count of the non-AI related content is a bit larger than the AI-related content's total word count. This resulted in me having to calculate the average amount of hedges and boosters per 1000 words for both of my content types.

The results of these calculations indicate a slight change in the two data comparisons. The AI-related content ended up having a smaller average between both the hedges and the boosters.

This could indicate that my writing has a good balance between being cautious in my writing and confident/persuasive with my writing voice. Since my overall boosters and hedges in the non-AI related writings increases, my writing style and voice seem to slightly increase in quality as a result.

Lastly, the results from the tone analysis using the top three hedges and boosters from each data set, indicates that my non-AI related writing approaches strong claims with caution according to the Piktochart fact sheet.

For my AI-related content, based on the results, while my content is said in confidence, my content is more generalized in the AI-related content versus the non-AI related content. This could be because of an overall lack of interest in AI writing topics.

Limitations

My research question asked if my writing style or quality changed depending on if I was writing about AI-related content versus non-AI related content. These evaluations point back to my initial research question because they focused on my writing style and my writing voice which impacts my writing quality.

To evaluate this, I acquired readability scores from each data set that shows me the difference in readability between my writing samples. I compared the amount of hedges and boosters between my two samples and the average of all hedges and boosters per 1000 words to see if there were any changes. Lastly, I chose the top three hedges and boosters from both sets of data and analyzed the voice of each one.

One of the limitations I experienced throughout these analyses is that some of the words on the Piktochart list were not displayed so I had to use my own opinion which could be considered a bias and therefore a limiting factor of my report.

Also for time purposes, I decided to only focus on the tones displayed in the Piktochart fact sheet and avoid other analyses like how hedges and boosters are used throughout different disciplines and how common those hedges and boosters are.

For the evaluation, cautious writing is generally good to have with academic related writings, but it also depends on the context. One of my limitations is that I did not have the time to see what piece of writing content every single hedge and booster was associated with.

As a result, I did not take the time to go through each word result and determine if the word was a hedge or booster based on my writing context. This is a big limitation because some of the initial data could be skewed if there was a word that was mislabeled.

Future researchers should consider going through each word with the context of the writing to determine further analysis. Overall, out of all of the limitations that occurred within the content analysis, the biggest limitation was time.

With that, unlimited time and resources would significantly increase the depth of this analysis and writings within this analysis.

Conclusion

The purpose of this analysis was to determine if my writing quality or voice changed based on if I'm writing about AI-related topics versus non-AI related topics. My findings from these different analyses were small, but still significant.

I found that, even if it's slight, my writing style and voice does in fact change based on if I am writing about AI-related topics. My academic writings have college level readability with the non-AI related writings having less technical writing and more understandability to general audiences compared to the AI-related writings.

My hedges and boosters analysis revealed that my AI writing voice has a good balance between being cautious and confident/persuasive. Finally, the tone analysis revealed my content is said in confidence, but content is more generalized in the AI-related content versus the non-AI related content.

This content analysis has shown me a lot about my writing and how I should move forward when writing about certain topics. I learned that, while it's a small change, there is a writing voice and quality decrease when the writing topic is something I'm not as fond of, like AI. Developing my writing and improving my writing is important to me as a technical writer.

Overall, I now understand the deeper aspects of what makes a piece of writing higher quality and how the way you write changes the way the writing is viewed by others and its impact it has on different audiences.

Citations

Boettger, R. (2025). *Fact-sheet--hedges-boosters*. Login.
<https://create.piktochart.com/output/29935214-fact-sheet-hedges-boosters>

Datayze. (n.d.). *Readability analyzer*. data·yze.
<https://datayze.com/readability-analyzer.php>

Appendix A

Initial Content Data

Text File Names	Text Register	Text Type	Date Posted	Word Count	Topic Category	Intended Audience
1_AI Comparison.Senior	Academic	Report	9/14/2025	783	AI Tool Review	Mr. Williams
2_Testing AI Against the Rules.Senior	Academic	Reflection	11/2/2025	251	AI Advertisement	Mr. Williams
3_AI Literacy in Action.Senior	Academic	Reflection	10/12/2025	451	AI Workflow	Mr. Williams
4_AI-Enhanced Self-Evaluation of Technical Writing.Senior	Academic	Memo	10/11/2025	1223	AI Enhanced Evaluation	Dr. Rea
5_Exploring Large Language Models.Memo.Senior	Academic	Memo	8/28/2025	586	AI App Comparative Analysis	Dr. Rea

6_Internship Reflection.Senior	Academic	Memo	9/24/2025	900	Internship	Dr. Lam
7_Mid-Term Status Report.Junior	Academic	Report	7/3/2025	557	Internship	Dr. Lam
8_Personal Interview Report.Junior	Academic	Report	2/18/2024	716	Interview	Mrs. Bellisario
9_State Fair Proposal.Junior	Academic	Proposal	10/27/2024	1186	Statefair	Dr. Cosgrove
10_Thoughts on the Business Proposal Reflection.Senior	Academic	Reflection	10/5/2025	863	Business Proposal	Dr. Croall

Appendix B

AI related AntConc Results

Hit #	Context	Hedge/Booster
17	Would	Hedge
11	Will	Booster
7	Certain	Booster
5	Definitely	Booster
3	Clearly	Booster
3	Rather	Hedge
3	Show	Booster
2	Entirely	Booster
1	Quite	Hedge
1	Really	Booster
1	Possible	Hedge
1	Seem	Hedge
1	Sure	Booster
1	Prove	Booster
1	Clear	Booster
58		

Appendix C

Non-AI related AntConc Results

Hit #	Context	Hedge/Booster
15	will	Booster
13	would	Hedge
9	certain	Booster
4	really	Booster
4	sure	Booster
3	may	Hedge
3	show	Booster
2	always	Booster
2	around	Hedge
2	clear	Booster
2	definitely	Booster
2	suggest	Hedge
1	actually	Booster
1	approximatel y	Hedge
1	assume	Hedge
1	entirely	Booster
1	generally	Hedge
1	mainly	Hedge
1	might	Hedge
1	quite	Booster

1	typically	Hedge
70		