Writing Across the Curriculum: Exploring the similarities and differences in the natural sciences, applied fields, and humanities

Lily T. Reece

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**Introduction**

 Within each field of study, the applied fields, natural sciences, social sciences, and humanities, there are certain requirements that come with the writing for that subject. Although it might seem easy to understand and execute, these fields all have drastically different ways of going about writing. Biology, Speech Pathology, and History are examples of topics found within the disciplines that are very different when it comes to writing. All three of these fields have requirements and techniques that are necessary for the audiences in these fields to understand their information. This way of writing includes language, structure, and reference because all of the fields require different things for each category. Language varies based on the way of describing the material in the writing. This can be more dramatic and flowy writing, or straight forward depending on the field. Structure is important in multiple ways because it helps with organizing the information that the author wants to get across. Reference makes citing sources clearer for the field’s audience due to the type of writing and credit needed to be given. All of these layers to writing in the disciplines is linked to Writing Across the Curriculum which helps students write in the varying subjects they come across during their time of learning. Without WAC, students would have a harder time transitioning into different styles of writing across the disciplines.

**Literature review**

Writing Across the Curriculum, also known as WAC, is a mode of writing that has been around for a long time and is used across all fields of learning. WAC is unique because of its abilities to adapt and change for any curriculum it needs to become a part of. Teachers and students work together to produce a way of writing that fits the subject matter to get the point across in the most specific way for the curriculum being talked about. In the articles talked about in this paper, the authors focus on a variety of reasons as to why WAC is effective and sustainable for the classroom setting. In many ways, these authors’ ideas overlap and even use each other as sources for their own articles. The three main themes that have been chosen from the articles are consistency, collaboration, and evolution. These three themes were common enough throughout all of the articles and made it clearer that WAC is an important tool used in the classroom.

**Consistency and WAC**

The first common theme that was displayed in the articles was consistency. Writing across the curriculum’s main focus is to help students learn better and write according to their field of study. This is shown by the ways of writing that WAC provides for all fields. WAC helps make writing in the fields specific to what the subject is about. This makes it easier for professionals to read the writing in their field because they have been accustomed to it for so long and there are specific rules that apply to that field of writing. In both Emig and Johnson and Krais’ articles, they talk about how consistency is key when writing for a specific field. It not only helps people learn the information better (Emig, 1977), but it also helps other people in the profession understand the information better because of the requirements for that field of study (Johnson & Krase, 2012). Writing is not always able to be used in all subjects (Emig, 1977), which is why having a set of standards for the field makes it easier to understand. This makes the writing more universal to the audience, rather than it being hard to understand due to the subject and format or language not agreeing (Johnson & Krase , 2012). Although Writing Across the Curriculum is not one set of rules for all fields, it is still a general rule for consistency that ensures clear writing for all subjects and their audiences.

 **Collaboration within WAC**

Another common theme for writing across the curriculum is collaboration. Anson, McLeod and Maimon, and Walvoord all talk about how the form of writing changes based on the type of material being talked about. All three articles mention how WAC isn’t just a set of rules, but how the teachers change it based on the curriculum being taught. Writing Across the Curriculum is also a compilation of past teachers and students ideas that inspire present WAC users (Walvoord, 1996). The current and past teachers also collaborate without knowing it by teaching different forms of WAC to students, which leads to a combination of the modes of writing in some ways (McLeod & Maimon, 2000). Also, since there is no set way of writing, it is always evolving into what the students and teachers work on together to create for each class. In a way, the students and teachers both collaborate on assignments which utilize WAC for them, while also taking ideas from past WAC users (Anson, 2010).

 **Evolution of WAC**

Evolution is the final common theme of the articles chosen for WAC. In Walvoord and Anson’s articles, both talk about how WAC evolves while it is being used, which is why it will never go away. The evolution portion of Writing Across the Curriculum is brought up in both when they mention how this mode of writing has been around for a long time but doesn’t seem to be going away any time soon (Walvoord, 1996). Writing Across the Curriculum is ever changing due to the teachers and students' use of it for certain curriculums. Walvoord’s article mainly focuses on the future of it and how it will sustain itself against other writing fads that will come and go (Walvoord, 1996). Walvoord’s main point in this article is that it is evolving with the times as any good form of writing does. Anson’s article also talks about how while the WAC is hard to learn, it will stick around because it is useful in so many ways (Anson, 2010). Although Writing Across the Curriculum is always changing within subjects, the main purpose of it stays the same: providing students with a set of rules for writing in their field of study.

Overall, WAC will be around for many years to come and will keep evolving as students use it. The main takeaways from these articles are consistency, collaboration, and evolution and are important features of Writing Across the Curriculum. These main points are part of the reason as to why WAC has been and will continue to be successful across the professions. Without WAC, the fields of learning would struggle to get their information across due to the writing style not being fit for the subject. Also, having a set style for the field makes it easier for peers to understand the writing and retain as much of the information as possible without having to figure out a style and language that they are not used to seeing.

**Methods**

 Learning about Writing Across the Curriculum has helped me grow in my abilities to write for all of my subjects. Without knowing how different each field is, it was hard for me to grasp the requirements for each field, as I got taught one thing in one subject and was told it was “the only way to do things”, but then told a completely different thing in another class. I chose to focus on the natural sciences, applied fields, and social sciences, as I am currently taking classes within all of those disciplines. Before this project, I had a really tough time writing within these specific subjects, so I made sure to focus on figuring out the requirements and techniques for each of them. While reading my sources, I took notes on things I picked up on in the writing. These notes consisted of things like language, structure, and reference, as all varied based on the subject and discipline. These notes helped me dissect the writing and really understand what I was looking at. At first, I honestly didn’t fully know what I was looking for in the writings, but as time went on and I looked at multiple articles from each discipline, I found what to look for and what types of writing were used in each.

**Results and analysis**

After reviewing the natural sciences, applied fields, and humanities, I have come to some conclusions about how they are all similar and different in their own ways. This section will be used to explain the information found in each discipline and how they are all related. Language, structure, and reference all looked different for each discipline, but also had similar characteristics that are worth mentioning.

*Language*:

Over the course of reading all six articles, I found similarities in language use between all, despite the drastic differences in fields of study. All of the documents had things that defined the fields, but also crossed over into others. The language varied based on the information being talked about and the discipline. Natural Sciences, Applied Fields, and the Humanities all show very different characteristics that define them because of the information they focus on. Using a type of language that didn’t fit into the field would cause confusion and make it harder for the scholars of those fields to understand what the writer was trying to get across. For example, Biology shows many distinct characteristics that most likely wouldn’t appear in other fields. The natural sciences use very distinct words to describe the data they have collected. In some cases, these words are only known and used by the natural science world because they just don’t make sense anywhere else. In “Animal Models of Speech and Language Disorders,” Rosenfield includes words to ensure that the audience knows the specific area of the brain that is affected when the disorder is present (2013). Also, the author leaves out “pretty” words, as they are not essential in the natural sciences world. Adding descriptive and unnecessary words to articles like this led to confusion and disorganization. An example of this would be in *Growth, Hormomes, and Milk in Infancy: Breastfeeding Versus Formula-Feeding* when the author says “recent studies indicate that birth weight could be predictive of later lean mass,” which shows how the author gets straight to his point (Savino, F., Fissore, M., & Liguori, 2010). In the applied fields, the language varies due to the purpose of the field. The applied fields are usually geared more towards a specific profession that are usually more hands-on and prepare the student to be successful in that area. An example within this discipline that focuses on a specific area would be Speech Pathology. This specifically fits into the applied fields because it requires the student to prepare to be more interactive with their patients. Writing for this profession would vary due to the types of works that the student/speech pathologist would be working with. The language within the field would also vary because of the types of writing. In some situations, the writer will be more descriptive and allow for more detailed descriptions of their patient. Other times, the Speech Pathologist will have to conduct research, similar to what goes on in the natural sciences world. The language would then be more direct and specific, having to clearly provide answers for their audience. Humanities, on the other hand, would usually stay away from the same language that is used in the previously mentioned fields. History, for example, uses language that is specific to the time period being talked about. “In recent years, soaps have also tracked behavioral change and attitudes…living outside marriage has become socially acceptable, when admitting gay is all right,” (Graham, 2000) The language in that sentence is common in the early 2000’s, but has evolved as television has become more popular. This field requires the writer to have to use descriptive language that can provide the reader with a clear description of the information being provided. Usually, the humanities This language is important because it will determine how the audience interprets the writing. Without the specific language that the humanities require, there would be a lot of more confusion and misleading information. Within all three disciplines talked about, all three have distinct differences, but all have similarities. All of the fields mentioned usually use a third person view, keeping their opinions out of the writing. This is common when describing events and research.

*Structure*

When it comes to structure, all three of the fields have characteristics that are specific to the structure used in the discipline. The natural sciences use a hypothesis, which can be compared to a thesis, which is used in other fields, as it introduces the topic that will be discussed within the paper. Also, the natural sciences use systematic observations when performing an experiment and writing about it in the biology field. Using the “scientific writing process” includes observing and describing the main focus for the experiment, speculating, performing the experiment, and then reporting the results. This structure is usually done in a report format which splits up the different sections, each one focusing on a different part of the project. These different sections within the paper make it easier for readers within the field to find what they are looking for, instead of having to read through a whole paper with the information hidden. In the applied fields, there is a similar structure concept that is used when reporting information. In some professions, there is a need for splitting the topics into sections within the paper. In other professions in the applied fields, like education, they use lesson plans to create the curriculum for the classroom. This includes breaking up the ideas and explaining each section based on the topic. Like the natural sciences report structure, the main idea is towards the beginning of the lesson plan to describe the purpose of the plan, and then below that it goes into detail explaining the information that needs to be taught. Another example within the applied fields would be a student IEP report used by Speech Pathologists, which is designed to show the patient what they should be working towards. This type of report is designed to be clear and show the client exactly what their goals are and how to get there. Unlike the humanities and natural sciences, this type of report can vary a little depending on the situation. Also, this does not necessarily have a strict structure to follow due to the varying disabilities that could need this kind of report. Overall, the idea is the same for a student IEP, but it does depend on the client and their goals. In the Humanities, common structural themes include the five-paragraph-essay and transitional phrases. Although these are common, they are specifically used in this field to help organize information and explain the thesis better. Using a thesis in this field helps organize all the information that will be presented in the writing. In history reports, the student is used to creating their thesis about the topic they performed research on and then using the five-paragraph essay to complete an essay on the subject. The thesis includes the ideas that will be talked about in the body paragraphs, and then the conclusion will go over what was talked about. Structure really varies depending on the discipline, but all three that have been talked about seem to connect on one theme: making it easy for the reader to understand within the field. Although the structure changes based on the topic and field, all of the examples’ guidelines ensure that the reader is able to understand the common structure, instead of it being confusing because of the material being presented. Without the differences in structure, presenting information would be harder due to the different topics and necessary structural characteristics that come along within the disciplines.

*Reference*

Reference within the disciplines is something that can become confusing when the writer doesn’t follow the correct guidelines that exist in the field. The natural sciences, applied fields, and humanities all have different ways of going about referencing resources that were used in the writings. In natural sciences, the author includes other scholars to support their results to help make their data more credible. as scientists use this technique to back up their own research and experiments. This ensures that their data is correct and has been tested more than one time. Without this referencing style, scientists would have a harder time finding factual information, as anyone can make an idea up and say its real, but with other references and sources, this ensures that the Scientist is not wrong or presenting information that has not been tested before. In the Applied Fields, the concept is similar, but not quite the same as the two previously mentioned. The applied fields covers a wider variety of referencing techniques, just like the structure section. Since the field has a lot of different subjects within it, there are requirements when referencing, but not all apply to every field. The applied fields does have some common themes within it, like citing other scholars within the field to ensure correctness and find similarities in research in their field. An example of this would be an IEP would take sources and include them to ensure their plans were correct for their student (Kopel, L. & Kilduff, E., 2016). In the humanities, the writer typically cites a lot of other authors works to make theirs more accurate and factual. The humanities field does this to show that other scholars agree or disagree with their interpretation of an idea. This helps the audience trust the writer, as it makes more sense if other scholars have studied the topic and found the same information. Similar to the natural sciences, including other scholars helps the author come up with their own view on the material they are studying. If they are having trouble finding the purpose or meaning of a certain work or idea, then the other scholars might help them figure out their stance on an idea. In *The History of Germany,* the author cites her sources at the bottom of the page to show where she got her information from (Turk, 1999). She does this because she couldn’t make the information up, so she had to research the subject and figure out the correct information.

**Discussion**

 Throughout doing this project, I have learned about many different styles of writing in the fields that interest me the most. Although I have already kind of looked into these fields, this has helped me see what lies ahead of me in my career of choice if I choose any of the three fields I researched. After looking deep into all three fields, Biology, Speech Pathology, and History, I have found similarities within the WAC research I have done, while also learning what makes each writing style unique to the professions. This has also helped me get a feel for what I would be focusing on in these professions, and it has shown me what is important and what isn’t to the scholars in those fields. In the future, further research could be done on the disciplines and can explain more of how WAC effects the writing process for students. While reading about the differences and similarities, I began to think about students that take one class in each discipline. For students that already struggle with writing, I thought about how all of the small details that need to be focused on might confuse the writer. This could lead to poor content due to the focus on structure. Performing a study on students in different majors who take general education classes that vary based on discipline might help professors understand the difficulties students might face while writing for different classes.

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