**Evaluating the Effects of WAC Through Three Different Fields in Three Different Disciplines**

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**Introduction**

There are many conversations going on in the academic setting, and a lot of different ways to learn and convey the messages found within them. Some may find one style of writing to convey the messages of a certain field easier to come to them than another field, outside of their thinking scope. Because not all writing situations will call for the same conventions and messages to convey as another might, it is important to have the ability to write in a way which best benefits that situation. This is where Writing Across the Curriculum (WAC) comes in, as it is a way for groups of people to come together and establish a cohesive way for people to address their research questions and ideas. In this paper, three different fields under three of the four different disciplines are evaluated to see the differences between their conventions and the writing situations a person may come across in that field. The fields this paper focuses on are the English field, which falls under the Humanities discipline, the Biology field, which falls under the Natural Science discipline, and the field of Psychology, which falls under the Social Science discipline.

Because of the nature of these fields, there will be similarities and differences between the conventions used, but all have a different research question they are aiming to solve. The questions being addressed in the Humanities discipline include questions involving the human experience and expression. This is different from the Natural Science discipline, which addresses questions involving the natural world, or observations of natural phenomena. Though they are very similar, the Social Science discipline differs from the Natural Science discipline in that the research questions focus more on the study of human behavior and the effects of environmental factors – among many other factors – on influencing human behavior. Despite all the different questions being studied in the different disciplines, many different conventions of language, structure, and reference can be used in multiple disciplines which can convey the information needed in a way that is beneficial for all involved parties interested in this information.

**Methods**

Looking at multiple different examples of scholarly writing for different disciplines is helpful to clear up any misunderstandings or confusion as to what type of writing is needed for different writing situations. When looking at what others have said about WAC, as well as getting first hand examples of papers written by scholars in different fields, it becomes clear what conventions are used, or preferred, for each field, as well as what is not often done or seen as appropriate. For looking at each field, this paper evaluates English, Biology, and Psychology. It is not easy to look at each field as its own separate set of rules, but better to look at it in a way which conveys that they are each different fields which may work together to convey some messages specific to their research questions. Biology is very intertwined with Psychology in the sense that Psychology focuses on the human behavior and factors which influence that behavior, and much of this is rooted in the human condition - biology. While this may be true, they are still very different fields searching for very different answers in their own ways. Both Biology and Psychology fall under different Science disciplines, while English under a very different discipline. This means they will have some similarities, if different objectives, and as such they convey information in a scientific format while being very formal, not often varying in the way the study or experimental data is relayed.

All the sources gathered from the Biology and Psychology fields were academic journal entries of experiments which worked best to convey that message, while the English sources were more paper-like, with a very informal feel to them. Given this, it was a much more formal feel when reading the sources from Biology and Psychology, as the information being given is important for the outcome of the study. There are no extra, unnecessary words used to convey the message, nor a feel of the researcher given in the articles. The feel was completely different for English, as it was a very laid-back, informal feel when reading, making it seem easier. There were also many different times in the sources where the author referenced themselves in the paper – unlike the Sciences – which made it feel personable and relatable.

When reading each source, different things were more important to acknowledge, like the uses of language, structure, and reference. Each use of a different type of language, structure, or reference was highlighted with a note describing how that made the source unique to its discipline. Each major conventions used in the different fields where noted to help show the differences the fields have to each other, and they were then compared to each other to find out which conventions are important for each different field, often finding that many conventions are used for multiple different fields.

**Language**

Many different types of language conventions can be seen, depending on the writing situation. For the Humanities discipline, looking more closely into the English field, there are many conventions in this field which won’t be found in other disciplines. The words used are a lot less scientific and formal, often making use of the active voice and first-person writing. Goebel (2020) represents this by using the first person often, putting himself in the story to help make it more personable and relatable to the audience. Choi, Meier, and Cushman (2020) represent this by also using the first person, often referencing themselves in the article using “our” or “we”. The conventions can be different in the Natural Science discipline, though, with looking more closely into the biology field. Because biology is a very scientific field, there is less personal position placed in the writings for those fields. This is necessary to make the information being given seem more accurate and impersonal, inserting a sense of neutrality or objectivity. As shown with Gao et al. (2018) and Viktorovich (2018), the language is less creative as in the Humanities, often using the passive voice to convey their messages. Also, this is seen as the opposite with the introduction by Viktorovich, which doesn’t necessarily need to be in passive voice to convey the message. Even more differences can be seen from the Social Sciences discipline, focusing on the Psychology field. There are many different areas, or branches, in this field which use conventions for that field. Psychology, like biology, is a very scientific field, which will use more logical and formal language than that of the Humanities. LaFrance and Tarbox (2019) represent this by using passive voice, taking the researchers out of the focus, referencing at ‘the paper’. They use language that is not creative, but factual and clear, saying the point in a straightforward way. Cherry (2020) also conveys this in the same ways, using factual scientific information to convey the message.

**Structure**

The structures of different disciplines vary widely, due to the messages they are trying to convey, and who and what that information is for. This can be seen by looking at each different discipline. Looking first at English, the conventions important to this discipline – and more closely this field – are clear. Using two different articles, one from Goebel and the other from Choi, Meier, and Cushman, we see the conventions for structure are different compared to the Science disciplines. The questions asked by scholars in the Humanities focus on the human experience and expression, using questions that are often open-ended – who, what, why, how, where, and/or when. Goebel (2020) shows us this through his evaluation of being funny in a learning environment. He investigates questions concerning what’s funny about certain topics about the human self and feelings, as well as why humor is good sometimes. There is also the writing structure that is important for different disciplines. Choi et al. (2020) represents this with a paper style of writing, using the Introduction, Methods, Results, and Discussion (IMRaD) structure. In this article, they have written a clear IMRaD set-up. There is also the use of subheadings which help to keep each topic separate and clear as to what the writing is about.

When looking at the Science disciplines, a very distinct difference can be seenin the research questions being asked and evaluated, and how they would go about this evaluation. While the research questions are very different, the structure of writing can often be similar. For biology, it also uses the IMRaD structure, though in a more scientific setting. For English, there was no research question being tested through experimentation, using the scientific method. In the Natural Sciences, they study research questions through observation and experimentation, asking why something acts as it does (observation of natural phenomena). Gao et al. (2018) reflects this through their evaluation of the complete chloroplast genome, which is the research question for their article. It is often shown through a step-by-step description of their process and results of the experiment. Viktorovich (2018) also reflects this through their research question of a certain type of HIV treatment. They each are researching different questions, although they still ask a question to be experimented on, ending with results of the experiment or observation.

The Social Sciences act in much the same way as the Natural Sciences, with some minor differences because of their research questions. Social Sciences ask questions related to helping us understand why we do what we do as well as the contributions of certain processes. In Psychology, what is important is the human condition and why it works as it does, often having to look at different behavioral and environmental factors to figure this out. For Psychology, there can be different structure forms depending on what is being evaluated. LaFrance and Tarbox (2019) study the importance of Multiple Exemplar Instruction (MEI), a type of instruction, and how it influences novel verbal behavior. They evaluate the behavior of humans in a very scientific way, though not through the use of an experiment, more observational research (or by looking at others’ research on the topic). The same can be seen through Cherry (2020) who looks at Abnormal Psychology from what has already been determined in the field.

**Reference**

 Much like the language and structure conventions, there are some similarities and differences between the disciplines concerning the reference conventions. As opposed to the science disciplines who share more similarities with each other, the humanities are often different. The way that sources are referenced uses the Modern Language Association (MLA) format, which causes a difference when citing sources as well as when using in-text citations. In both the social and natural science disciplines, they use the American Psychology Association (APA) format when citing sources. A humanities researcher would use in-text references that only address the last name(s) and the page number, while a research on the sciences would list the last name(s), page number, and the year of publication. Because of the types of questions being asked, it is more important for them to use references that are valid in that time, rather than looking at methods that are outdated and no longer in practice or no longer believed to be true. This shows the differences in what is more important for each discipline compared to the others. Like the English sources referenced, it is a more creative discipline. This is different from the sciences, which are focused on factual information, and being accurate and relevant to the discussion. The sciences also often put a lot of importance on collaborations with other experts in the topic being reviewed, looking at what is being said, rather than the language used to say it. Therefore, researchers in the sciences are more often going to summarize what is being said rather than using direct quotes, as researchers in the humanities would do.

**Discussion**

 When reviewing multiple sources from the same field under a specific discipline, we can see the conventions set in that field to ensure everyone reading has an understanding of what is being said. But we can also see when looking at other fields, either in the same discipline or a different one, that there are some similarities and differences in the conventions that are followed. While Psychology, Biology, and English are all part of different disciplines and contain very different rules they must follow, they still have certain aspects of writing that are similar. This review of conventions from different disciplines has taught me that writing in the university can be very particular in its needs. There are certain things in the sciences disciplines that must be considered when writing, such as the date the material being reviewed was published and what is being said in that material. On the opposite side, in a field like English under the Humanities discipline, the date the material was published is not important to the scholars as there aren’t really methods they need to worry about going out of practice or being ruled as wrong.

Rather, it is more important for them to focus on how something is being said, not just what that something is. There is a sort of switch of the mind, that needs to occur when going from one discipline – or even field – to another. This is because the mindset needed for each field will be different, as a different thought process is needed for Biology than for English. It is good to keep in mind when reading or writing for different subjects to remember what field is being written for and the topic being addressed. This research can further add to the conversation of WAC in a valuable way by conveying the idea that every discipline is something different that needs to be addressed. All the ideas being introduced from many different scholars and researchers can help to improve some aspect of life, but we must first be taught the tools to successfully convey these messages before we can contribute our knowledge to the conversation.

 The best way to learn more about a subject is always to get it straight from the source you are trying to learn from. Research being conducted to learn more on the differences of writing across the university is best gathered from the students of a university. When reviewing many different examples of students’ writings in a university from many different universities, one can get a better feel for how much the conventions can vary. Take for instance the writing of a student taking a poetry class and a biology class. It would not benefit that student to use the same mindset when attempting to write a poem as when attempting to write a lab report. One is focused on creativity, imagination, and figurative language. The other is focused on logical reasoning and facts. This is why it is beneficial to review the writing of multiple different fields, to see what is needed for each, to help a person who may struggle with one to see how they can restructure their thinking into what is best for that work. Not only looking at different fields, but also different students’ takes on what writing means in that field, to get a better feel for what they understand writing to be.

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