

Article

# PhD Students Learning the Process of Academic Writing: The Role of the Rhetorical Rectangle

Beverly FitzPatrick

Memorial University of Newfoundland and Labrador

Mike Chong

Memorial University of Newfoundland and Labrador

James Tuff

Memorial University of Newfoundland and Labrador

Sana Jamil

Memorial University of Newfoundland and Labrador

Khalid Al Hariri

Memorial University of Newfoundland and Labrador

Taylor Stocks

Memorial University of Newfoundland and Labrador

Christopher Cumby

Memorial University of Newfoundland and Labrador

## **Abstract**

PhD students are enculturated into scholarly writing through relationships with their supervisors and other faculty. As part of a doctoral writing group, we explored students' experiences that affected their writing, both cognitively and affectively, and how these experiences made them feel about themselves as academic writers. Six first and second year doctoral students participated in formal group discussions and wrote personal narratives about their writing experiences. Data were analyzed according to the elements of logos, ethos, pathos, and kairos. Analysis revealed that students were struggling with their identities as academic writers, not feeling as confident as they

had before their programs, and questioning some of the pedagogy of teaching academic writing. The results included the development of a rhetorical rectangle comprising the four elements: logos, ethos, pathos, and kairos, which could be used for pedagogical writing strategies.

## **Introduction**

Many students begin PhD programs believing they are good writers. They have had successful academic and workplace experiences, having achieved mastery and control. Then, they start writing as PhD students and receive feedback that may not always be positive, or even helpful. Students feel their control starting to slip a little as they begin to question their beliefs about how well they can write.

According to Ramage et al. (2016) and others (e.g., Paul & Elder, 2007; Wallace & Wray, 2016), academic writing goes beyond descriptive writing, and requires teaching and practice. In particular, academic writing can be discipline specific, and graduate students may be entering uncharted waters. Starke-Meyerring (2011) argued that “what is normalized and appears universal to long-time members of a research culture is deeply culturally specific to that research culture and therefore new to doctoral students” (p. 79). In other words, for academics embedded within a discipline how they write becomes their norm. However, this norm is new, or at least has some new expectations, for beginning doctoral students. Thus, doctoral students need to learn to write according to the norms of the research cultures they are entering. Further to this, Aitchison et al. (2012) declared that we still have a lot to learn about how graduate students learn to produce scholarly writing.

The purpose of this study was to gain understanding of learning to write academically from the perspectives of six first and second year PhD students who are also co-authors of this paper. What experiences do students have with their supervisors and others that affect their writing and influence how they see themselves as academic writers? Furthermore, how might their thoughts and feelings inform pedagogical practices of immersing doctoral students into the discourse of scholarly writing?

## **Writing as a Social Practice with Cognitive and Affective Dimensions**

Writing is often thought of as a social practice where doctoral students begin to immerse themselves into an academic environment that has expectations and rules for writing that have been accepted as part of the academic culture. These conventions may not always be explicitly conveyed to first year students, but they are implicitly understood by academia. Students learn to write as they socialize

themselves into the academic culture with the guidance of their supervisors or other faculty. The responsibility for learning to write within the norms of academic writing becomes a joint charge as students learn to identify themselves as writers contributing to and finding a place within scholarly writing communities (Inouye & McAlpine, 2019). However, Cayley (2020) acknowledged that not all doctoral students receive the same supports and that “good writing supervision may be highly contextual” (p. 14). Our study supports this conclusion and sought to explore how these contexts, according to the thoughts and feelings of first and second year doctoral students, play a role in their perceptions of themselves as academic writers.

Thompson (2016) expressed, “writing well takes *serious* effort” (p. 1, italics in original). It is agreed that novice researchers must learn more than how to conduct research, they need to learn to write about their research in ways that will be deemed appropriate within their disciplines (Badenhorst & Guerin, 2016). Pare (2011) described doctoral supervisors as “writing teachers” (p. 59). With suggestions, feedback, modelling, shared writing experiences, and formal and informal assessment, doctoral students are enculturated into scholarly writing through relationships with their supervisors, other faculty, and peers. They may co-author work with their supervisors, which allows them to polish their writing skills; learn about bodies of literature (Maher et al., 2014); avoid over-using jargon, obscure vocabulary, and complex language (Green, 2010); and become acquainted with citation practices that situate them as academics (Grav, 2019). Through these processes they learn to make sense of their disciplines and scholarly expectations as they immerse themselves in the writing process.

Doctoral students, in most disciplines, are required to write arguments and display critical thinking in their writing. This does not happen naturally for most students, it has to be taught, and can be a struggle for first year PhD students (Pare, 2011; Starke-Meyerring; 2011; Stillman-Web, 2016). While academic writing undoubtedly has strong cognitive components, it also sits within the affective domain (Badenhorst, 2018; Bosanquet & Cahir, 2016; Cameron et al., 2009; Cotterall, 2013; Dwyer et al., 2012), and particularly so for emerging academic writers who try to meet the demands of doctoral programs and develop identities as scholarly writers. The affective domain includes positive feelings and emotions, for example, enjoyment, passion, and inspiration (Krathwohl et al., 1964). It also includes negative feelings and emotions such as worry, frustration, and despair. Emotions can be thought of as physiological responses, but we also see them as an integral part of learning. They can stimulate or inhibit the learning process (Cotterall, 2013; Eynde & Turner, 2006; Zembylas, 2004).

Many studies focus on the emotional nature of doctoral work (Aitchison et al., 2012; Burford, 2017; Casanave, 2002; Hunter & Devine, 2016). For example, Aitchison et al. noted “an abundance of heartfelt responses” (p. 438) from doctoral students as they spoke in extremes of the “joy and pleasure of writing” and the “pain and frustration” (p. 438). Moreover, Aitchison et al. described the perspectives of supervisors, some of whom saw “learning to write as something that had to be suffered by both the student and the supervisor” (p. 439).

Casanave (2002) highlighted the frustration that doctoral students undergo, labeling it as the “writing game” (p. 5). She used the game metaphor to explain personal and academic adjustments students make to become better academic writers. She further asserted that frustration occurs when the rules of the writing game are unclear. However, Casanave does not view frustration as necessarily negative. Rather, confusion and frustration can be liberating in the sense of allowing students to develop their academic identities (i.e., seeing where they fit in and what their interests are). If the writing process is supported with helpful supervision and clear guidelines, then academic writing for novice writers can become stronger.

These cognitive and affective attributes intertwine as doctoral students continually write more as they progress through their programs. As Thomson and Kamler (2013) asserted, writing is “about thinking *and* feeling” (p. 4, italics in original). We agree that the affective domain (Krathwohl et al., 1964) can contribute to writing as how one feels is a significant factor in learning.

## The Rhetorical Rectangle

How to write an argument is foundational to academic writing. While there are numerous argument writing models, (e.g., Ennis, 1996; Paul & Elder, 2006; Scriven, 1976; Toulmin, 1958/2003), we focused on the *rhetorical triangle* (dating back to Aristotle) as it includes the contribution of the affective and cognitive domains to writing. Ramage et al. (2016) presented an in-depth look at the three elements of the rhetorical triangle—logos, ethos, and pathos—as being crucial to argumentative writing. Tinelli (2016) and others (e.g., Oliverio, 2008; Talaue, 2020) have also considered the rhetorical triangle in relation to writing. Tinelli treated the elements of the rhetorical triangle as almost disparate in that logos reflected the written text, ethos the writer, and pathos the reader, and proposed a three-dimensional model of the rhetorical triangle as a pyramid with “context” as the base.

Kinneavy and Eskin (2000) argued that *kairos* was also an important part of Aristotle’s rhetoric and was reflected in Aristotle’s use of the terms “*virtue, equity, fitness, and occasion*” (p. 433, italics in

original). And, Ramage et al. (2016) discussed how kairos contributes to an argument's effectiveness, as in when and where to make a particular point. Harker (2007) transformed the rhetorical triangle into a rhetorical pyramid with the four elements as the vertices and emphasizing the role of kairos. For our work, we took a slightly different approach and decided to situate ourselves within a *rhetorical rectangle* to study doctoral students' academic writing experiences and to claim that the four dimensions of the rhetorical rectangle work together to comprise academic writing. And, although we coined the term rhetorical rectangle as a model for academic writing, we acknowledge that this term has been used in different contexts. For example, Simonson (2014) used this term in reference to Aune's (2008) work on social spaces that occurred at particular moments in time, related to Aristotle's rhetoric, but not to writing.

## Logos

Evidence, proof, and reason are just a few words that commonly describe what logos means in rhetoric, but "logos is a word of notoriously many meanings" (Moss, 2014, p. 182). The Greek word logos is considered to mean reason or logic in many contexts (Boscolo & Hidi, 2006; Connors, 1979; Tinelli, 2016), and is thought by some to be the rhetorical triangle's foundation as it traditionally refers to logic, clarity, and validity in scientific writing (Tinelli, 2016). Tinelli argued that logos also includes the "negotiation of purpose and authority in the construction of new knowledge claims" (p. 103). Within the contexts of the rhetorical triangle, and the rhetorical rectangle put forward in this paper, logos is most notably evident through the strength of the logical argument. This argument is supported by evidence, facts, data, and other information necessary to convince the reader of the merits of the article's argument (Ramage et al. 2016; Thompson, 2016).

One example of a logical argument structure that speaks to logos would be the Toulmin argument developed by British philosopher Stephen Toulmin (1958/2003). The Toulmin argument consists of a logical and sequential writing process that includes the following components: claim, warrant, backing, evidence, rebuttal, and qualifiers (Brockriede & Ehninger, 1960). Ting (2018) also noted, "in a rhetorical analysis, the appeal to logos can be identified from the use of argumentation, logic, warrants/justification, claims, data, and evidence/examples" (p. 238). Carefully crafted text incorporating a Toulmin argument represents the logos component of the rhetoric, allowing authors to logically present their thesis and convince readers of their position.

Complementing these thoughts, logos, according to Ramage et al. (2016), focuses not only on the type of evidence to use in an argument, but also how to use this evidence in an ethical, responsible,

and persuasive manner to strengthen academic arguments. We assert that although logos has some discrete characteristics, it also functions interdependently with ethos, pathos, and kairos to enhance the persuasive nature of the writing; deemed necessary as academic writing is meant to be persuasive in nature (Ramage et al. 2016; Thompson, 2016).

## Ethos

The concept of ethos speaks to the writer's credibility so that readers can trust what is being read and feel confidence in the writing and the writer. There are mixed thoughts about whether ethos resides in the writer or the writing. Lutzke and Henggeler (2009) explained Aristotle's understanding of ethos in terms of "the role of the writer in the argument, and how credible his/her argument is" (p. 1). Tinelli (2016) agreed with Lutze and Henggeler and affirmed that ethos focuses on the writer as it aims to ensure that the writer meets the standards of credible and reliable information. However, Bloch (2010) argued that citations and verb choice are indicators of the ethos of the writer and the writing claims, while Ramage et al. (2016) contend that Aristotle's notion of ethos emanates from what is written, or the argument itself, not the writer.

Ethos responds to the question of why a reader would be interested in reading a certain text, or why a reader would choose a certain author. Academia produces numerous texts every year, and ethos contributes to the competitive world of publishing certain texts over others. Ethos comprises how well the author conveys a knowledge base and alternative viewpoint; whether the author appears invested in the claim being made; and if the writer demonstrates professionalism in terms of appropriate writing style and genre conventions, correct grammar, and properly cited references.

However, knowledge alone may not be enough to convince readers that a writer or a piece of writing is worth reading. Ramage et al. (2016) suggested that writers should be able to show their broad understanding of the topic in terms of both arguments and counterarguments to show awareness of arguments that have already been established. To be credible, academic writers need to situate themselves within the broader literature by taking clear positions and drawing conclusions both for and against previous scholarly work in order to explain their chosen position and, eventually, develop their authorial identity (Ennals et al., 2016; Inouye & McAlpine, 2019). Kindt (2016) wrote about the traditional complexity of academic language and argued for simpler, more accessible language intended to clarify academic arguments, inevitably adding to the ethos of the writing. Logos may be thought of as the argument being put forth, but ethos is intended to strengthen the portrayal of the persuasive argument.

## Pathos

Authors have a purpose when writing, and for personal writing they need only consider their own beliefs and values. The author's personal commitments to the text and emotions may be present in academic writing, but academic writing is intended to be shared with an audience, often other academics. Some of these readers will have shared interests and similar beliefs, others will need persuasion to accept differing views. Thus, the expectations and feelings of the intended audience must be considered if the writer is looking for engagement in the text.

Pathos appeals to the readers' emotions and imagination. Thompson (2016) stated, "it is important to express your personality within your campaign to persuade the reader to your points of view" (p. 2). The writer has to consider the beliefs and values of the intended audience, and through pathos can convince readers by invoking security, love, guilt, pity, humour (Gabrielsen & Christiansen, 2010), or anger, insult, empathy, fear, confusion (Mshvenieradze, 2013), all of which fit with the affective domain. Pathos helps to put "the audience into a certain frame of mind" (Demirdöğen, 2010, p. 190).

Braet (1992) noted that while pathos is non-argumentative and an inferior form of persuasion and that only logos is based in argumentation, pathos can be important for conveying successful arguments through appealing to readers' emotions (Mshvenieradze, 2013), leading to synergy between logos and pathos. Ramage et al. (2016) classified some of the strategies writers can use to make this appeal. They identified concrete language; specific examples and illustrations; narratives; and connotation of words, metaphors, and analogies. Attention to pathos, along with ethos, strengthens the persuasive argumentation that is an integral part of academic writing.

## Kairos

Kairos is concerned with timing and appropriateness. The Greek god Chronos was the god of time, and his counterpart was Kairos, the god of opportunity. The Greeks recognized that while time is always moving forward or chronological, there are some moments in time that are better than others when considering action. Scott (2013) explained that "different from chronos, the linear passing of time, kairos means a rhetor has found the opportune time to act and is acting in the appropriate measure" (p. 1). Thus, the concept of kairos as moments of time was incorporated into speech, action, and rhetoric by ancient philosophers.

Aristotle's rhetoric connects kairos to arguments as well as style and organization, the ethos domain (Kinneavy and Eskin, 2000). Kinneavy and Eskin argued that kairos is a necessity to writing, but was often neglected "in part, to its absence in reference dictionaries," (p. 442). Similarly, Bloch (2010) argued for the importance of incorporating kairos so students can learn to create "an appropriate argument at the appropriate time", and claimed that this is a "point that has frequently been ignored" (p. 240). We need to consciously think about kairos when writing and explicitly teach the concept to students.

Harker (2007) expanded on Kinneavy and Eskin's (2000) concept of kairos, explaining that "kairos is charged with ethical concerns and relativism; it remains both situational and contextual and represents, at times, a moment at which one must finally act" (p. 84). The ethical dimension goes one step further than pathos because it considers who or what is being written about and not just the audience's perspective. For example, in qualitative research, the specific choices of quotations, interpretations, or explanations to include in writing have ethical considerations that academics must consider. Ramage et al. (2016) wrote that "kairos reminds us that a rhetorical situation is not stable and fixed, but evolves as events unfold or as audiences experience the psychological ebbs and flows of attention and care" (p. 111). They maintained that having kairos is to "be attuned to the total context of a situation in order to act in the right way at the right moment" (p. 111). Thomson and Kamler (2013) discussed a similar notion when they recommended locating writing within "the context of the discourse community and the field in general" (p. 61).

We think the addition of kairos to produce our rhetorical rectangle encourages PhD students and their supervisors to engage in meaningful discussion about academic voice, and when, where, and how to express their voices in addition to the more static elements of logos, pathos, and ethos. Even if logos, ethos, and pathos are established in writing, it is important to consider whether it is the right time and place to share writing.

## Logos, Ethos, Pathos, and Kairos

According to Harker (2007), "logos, ethos, and pathos do not have easily definable counterparts in English" (p. 80), and are usually taught as a grouped concept "as a place of inquiry, approximations of logic, character, and empathy" (p. 80). Too, "kairos is not definitive but rather a starting point for grasping the whole of an argument" (p. 80). Thus, these four elements intersect in a meaningful way and play, both individually and together, a major contributing factor to successful academic writing.

## **Method**

Our study is based in a subjective/interpretive epistemology, drawn from the perspectives of six PhD students who were required to write within an academic discourse which has particular expectations, some more explicit than others. Each student's reality was honored, recognizing that they were not necessarily objective and that their biases lent strength to the inferences they made. They did not hide their biases, and instead, used them to explore and explicate their beliefs and values.

### Participants

Six students took two first year PhD courses, (a) group course on advanced research methodologies that required them to write within specific research genres, and (b) individual course with their supervisors that focused on their substantive areas of study and other types of academic writing. In addition, they participated in a voluntary PhD student and faculty writing group which met weekly (and is still occurring). There were five first year students and one second year student, ranging in age from late twenties to early fifties. Their backgrounds include teaching, educational leadership, counselling, pharmacy, and organizational development (see Table 1).

Table 1. Student Demographics

Pseudonym	Age Range	Work Background	Gender	Research Interests
Adam	30s	Teacher	Cis Male	Language, culture, and writing; Nonnative English teachers; English as a lingua franca
Apollo	20s	Teacher	Cis Man	Peer support, Cognitive behavioural therapies, LGBTQ+, Social activism, Community psychology
Diana	30s	Teacher, Instructional Designer	Cis Female	Educational technology, Professional development, Policy
Humphrey	50s	Educator, Education Leader	Cis Male	Educational leadership, Professional learning, Educational technology
Rowan	20s	Organizational Development	Trans Nonbinary	Institutional change, Queer and disabilities activism, Policy
Stompy	30s	Pharmacist, Educator	Cis Male	Health professional education, Curriculum, Ideology

## Ethics

Institutional ethics approval was not required as it was a self-study, but a framework of relational ethics backgrounded this study. Relational ethics is “informed by a caring attitude toward others” (Uhrmacher et al., 2017, p. 28) and negotiation throughout the research process. We acknowledge the power differential between the faculty member and students, but this was not a class where the instructor was awarding grades. Rather, she listened to the students’ thoughts and feelings, and did not voice any thoughts during the discussions. She did encourage them to speak openly and they had the choice of what parts of the data they felt comfortable including in the paper. The students were enthusiastic about conducting a study and getting the opportunity to write a paper together for publication.

## Data collection

We conducted two formal group discussions connecting the students’ thoughts and feelings about their writing experiences in their doctoral courses and with their supervisors. The discussion leader

introduced de Bono's (1985/1992) *Six Thinking Hats* as a framework for our discussion as it provided an appropriate approach to delve into the students' emotions as well as their more cognitive thoughts. In fact, we started with the red hat part of the discussion which led us into the affective domain immediately as the red hat focuses on feelings. De Bono's framework aligned well with our stance that writing encapsulates both the cognitive and affective domains. Other than being appropriate to the rhetorical rectangle concept as both include the cognitive and affective domains, we do not make a meaningful connection between the two. While the red hat denotes feelings, the white hat emphasizes cognition. The yellow, black, and green hats require a mixture of cognitive and affective domains, and the blue hat is for leading the discussion (Table 2). Thus, we embedded our discussion within the categories of facts, feelings, judgement, and possibilities. We audio-recorded the discussions and transcribed them verbatim.

The students also wrote individual narratives to personalize their stories about writing within the academic context, with both common and individual experiences. They used a holistic narrative construction (Barone, 2007) to interpret their involvement in the world of academic writing as student scholars (Josselson, 2011; Leech & Onwuegbuzie, 2008; Schwandt, 2007).

Data include 96 minutes of audio-recording, 16 pages of transcription, and 14 pages of narratives. After the discussions were over, and as a concluding consideration of the rhetorical rectangle, the students rated the four elements for their importance in writing and two students created a figure to represent their thoughts and feelings (in findings section).

Table 2. Six Thinking Hats by Edward de Bono (1992)

Red	Feelings, no justification needed
White	Facts, information
Yellow	Positive thoughts, optimism, value
Black	Judgement, evaluation, caution
Green	Possibilities, new ideas
Blue	Managing the six hats

## Trustworthiness

We conducted nine qualitative research validity checks (Creswell and Miller, 2000) and four validity approaches specific to narrative research (Polkinghorne, 2007). The qualitative checks are:

triangulation; member checking; audit trail; disconfirming evidence; prolonged engagement in the field; thick, rich description; researcher reflexivity; collaboration; and peer debriefing. We achieved triangulation through two formal discussions and written narratives as data sources. We also met triangulation through multiple researchers analyzing the data. Member checking was a natural event as the participants were the researchers. We kept an audit trail of what we did from beginning to end, including dates, transcripts, and analyses. Disconfirming evidence is apparent in the findings. Prolonged engagement was met by two years of meeting weekly as a writing group. Our findings include quotes for thick description. Researcher reflexivity is met as the students acknowledge that they have biases which are part of their data and the interpretation. Collaboration and peer debriefing were ongoing.

Polkinghorne (2007) and others (e.g., Kane, 2006; Sireci, 2009) recognize that validation is a process of argumentation, and specific to the claim being made. Our claims are about the understanding and meaning these students bring to their writing experiences as doctoral students, as fitting with narrative analysis. According to Polkinghorne, validity concerns about narrative analysis focus on language, such as (a) language limits to capture complexity, (b) ability to reflect on thoughts and feelings outside the conscious realm, (c) social anxiety about revealing private thoughts and feelings, and (d) the intricacies of researcher and participant co-created texts. We discuss these in more detail.

Responding to the “limits of language to capture the complexity and depth of experienced meaning” (Polkinghorne, 2007, p. 480), conducting the discussions provided opportunities for students to listen to each other and build upon each other’s expressed thoughts. Also, when people speak in a group they can respond to each other and use tone, gestures, and so forth to communicate meaning. This helped to strengthen validity. Too, according to Ferraro and Palmer (2005), written language is often more precise than oral language as the writer has more time to choose words than when speaking, as with the narratives the students wrote.

The discussion also provided opportunity for students to become aware of thoughts and feelings they might not have realized on their own. Listening to others helped bring some thoughts to their immediate consciousness. Also, Polkinghorne (2007) and Seidman (2005) recommended multiple interviews to build trust in the interviewer. We had two formal discussions, and we also met weekly as a writing group, so there was a level of trust among the group members. However, with one faculty member and six students, there was and continues to be a recognition that the faculty member has more power than the students. Thus, with the trust is also a power differential.

Last, co-creating the paper entails trust and recognition of the power differential. The student narratives were not co-created, and they served as data as well as a form of student representation. The students and faculty member reached consensus on the overall interpretations, accepting that not all students thought the same about some specific issues and that differences as well as agreements would be part of the findings.

## Analysis

We used structural coding (Saldana, 2016) to search for thoughts and feelings about their academic writing experiences, meaning our first cycle of coding included searching for responses to the discussion prompts related to de Bono's Six Thinking Hats (1985/1992). For example, the red hat was used to explore feelings so our first coding was around feelings related to writing. For second cycle coding (Saldana, 2016) we used pattern coding to establish commonalities and differences among the students' feelings and thoughts.

In addition, we used keywords-in-context analysis (Leech & Onwuegbuzie, 2008) to contextualize words that fit with the four elements of the rhetorical rectangle (e.g., *confidence* for pathos). Using more than one type of analysis resulted in the choice of quotes and explanatory details that we used to elaborate our findings and provide thick description.

## Findings

We organized the findings according to the elements of logos, ethos, pathos, and kairos. Our analyses revealed that these categories apply to more than actual writing products, they apply directly to students' thoughts and feelings about learning to become academic writers. We provide examples of how these categories fit so aptly with the students' thoughts and feelings. We have included quotes from the discussion and narrative data to enrich the descriptions and enhance clarity. When a quote is from the narratives, we used the verb "wrote" or indicated it was from a narrative to distinguish these quotes from the discussions. Student-created pseudonyms are used. Each element heading includes a student quote.

Even though the four writing elements included cognitive and affective perspectives, the affective—the feelings—was sometimes expressed so passionately that we include a fifth category labeled "The Role of the Affective Domain". This is not intended to infer that the affective domain is

not a vital part of the rhetorical rectangle, but that it deserves its own category, as its own right, in our findings. Our last finding is the rhetorical rectangle visual (see Figure 1).

Logos: "I have to follow a specific structure designed by someone"

(Adam)

Students were coming to grips with what they perceived as general academic writing expectations about structure in their disciplines. Humphrey saw some value in these expectations, as in "I appreciate there is a structure and an acceptance that things are written in a certain style, regardless of the topic or the subject, argument, counter argument, introduction, so it has a nice logical flowing structure". Apollo explained that for him, "it was a learning process of what exactly it means to use logic in an academic writing scenario". And, Rowan expressed,

I really like writing for forcing linearity, and I resist it in the entire process of writing, but it is really nice to know I can get from point A to point B in a way that is coherent to other people, because my thinking is not like that. If I weren't forced to write then I would continue being a very scatterbrained thinker.

Apollo specified,

thinking about logos, I've noticed how the idea of logic plays in my writing. I have always been intentional about how I write, but now I think about how I have this point and then I have to connect it here and then what's the logical flow of it, how do I get from this point to this point and it makes sense, do I build up my argument slowly, do I do an inverted pyramid like literature review down to discussion, how does that kind of lead into the other aspects of this sort of rhetorical rectangle, how does the logic flow into emotion, how does it flow into the style of writing?

Humphrey felt comfortable with the logos element of writing. He wrote in his narrative that "even after completing a year of doctoral studies and being introduced to other writing styles and formats I still contend logos to be the strongest component of the rhetorical triangle and heavily lean towards it within my academic writing". Diana added, "coming to the logic point, I think I am now beginning to understand that the more we cite we need to prove it with logic and experience and spread it with examples".

Students talked about the importance of receiving feedback to help with logos. Diana expressed, "it's very important to get the right feedback at the right time so you can polish it up and resubmit it,

and again polish it up and re-resubmit it, so that is where the role of the supervisor comes in". Rowan reinforced this,

it is very helpful when a prof will lay things very basically, like these are the expectations and this is what we need from you, and that at least is a starting point because without having clarity around the types of writing that they want, even if it's just bi-weekly update emails then I feel untethered, like maybe my freight train is going in some direction that maybe I shouldn't be going. However, not all students made positive observations. For example, Adam talked about different expectations for Western writing opposed to other cultures, as in having to provide counter-arguments and references for all your thoughts. It troubled Adam that "writing in a language that is not one's own requires time and effort to be mastered", and that "the first critical feedback I received from my instructors rang a bell for me that I had to abide by certain rules even when my argument was valid or true".

In addition, students did not always agree on the type of feedback that might be helpful. Adam was adamant that "we need people who give us feedback like how you strengthen your argument rather than why didn't you see it from another perspective". But Stompy thought a little differently, "sometimes you don't see the other perspective until someone shows you".

Learning to cope with and benefit from disparate feedback was deemed a hurdle for some. For Diana, "the greatest challenge was to digest feedback comments from two instructors who seemed at opposite ends". This provided an extra burden in moving forward with her writing so she "started focusing on the positive comments and hand-picked constructive comments leaving out negative comments" during her first year as a PhD student. She decided she would learn to process negative comments as she progressed through the program.

Ethos: "I've struggled a lot with credibility" (Rowan)

Students compared their credibility as academic writers with the rest of their lives. Stompy wrote, "In my background as a pharmacist, my credibility developed through experience...and I can influence a medical doctor to change a medication order with seemingly little rationale...". But now credibility was a struggle, as reinforced by Rowan in his narrative, "I find it difficult to understand what kinds of arguments, evidence, and extrapolation are legitimate".

Humphrey linked ethos with logos by asserting that if he did not use justification from the academic world to support his arguments then he felt "credibility is lacking in the writing". Rowan spoke about the necessity to read widely in order to write in a credible fashion, "in order for it to be

legitimate ... I would have had to have done more reading in order to be credible". And, Adam lamented that his own experiences were not valued in terms of credibility,

I learned that my experiences and personal observations don't mean anything unless they are documented, but I know deep inside myself that they mean something and they matter because I have been through this experience, as long as they are not documented and reviewed and ethically accepted, they are like zero".

Adam posed reservations about the structure of referencing that he thought was being imposed on them as PhD students. He emphasized, "there are things there is no way to express because it is very strict, in English when I say something I have to find references for that, sometimes it's MY idea, but then again someone else said it, sometimes I feel it's common sense so why do I have to reference that". Several students agreed with Adam and did not think they should have to reference as much as was being required, especially pertaining to what Stompy called "common knowledge" or "established fact". However, Humphrey said he had no trouble with it as it related to credibility.

Adam spoke passionately about ethos, and felt that faculty did not appreciate his credibility as a knowledgeable writer as much as they judged his grammar. He acknowledged the role of grammar in ethos, but expressed in exasperation, "I also feel that if I have a great idea, I don't know how to write well in academic, follow the rules of academic writing in English, so the great idea will mean nothing, so we care more about the rules than the ideas we come up with". Apollo and Rowan addressed this same point slightly differently. Apollo reasoned,

it also has to have transitions, it also has to make sense structurally, it also has to sound good, if it's disjointed language the flow isn't there, so it has to have that audience appeal, emotional appeal altogether, and eventually it becomes kind of intuitive rather than having to kind of consciously think about the flow.

And, Rowan wrote in his narrative that "to use the wrong word in the wrong place can destroy any hope of gaining legitimacy as a scholar". Rowan connected ethos and kairos in this statement as he also wrote about how language is often used differently among the disciplines and how using a particular word or phrase might be deemed wrong in certain situations, which would then affect the credibility of the writer in that particular discipline; hence, ethos.

Apollo recognized early on that credibility had to be built and that it was a complex process. He shared in his narrative how he tried to develop credibility, "Learning to develop credibility was as much an emotional process as it was a mechanical process. I began going to more research conferences, presenting posters and presentations locally and nationally, as well as submitting

written work to magazines and journals". Diana, too, wrote that she made a conscious effort to attend to ethos, "I started to elaborate more on the citations that I referenced using examples that supported ethos and provided credibility to the writing".

Pathos: "It was very difficult for me to identify who I was writing for"

(Diana)

Students were grappling with the role of the audience, the readers of their work. This recognition of how the reader's beliefs, values, and feelings could influence reception of their writing sometimes produced consternation, and even a little rebellion, as they began to realize its role in the academic world of writing.

Stompy had some queries about student writing for courses, as in "when you're doing course work, who is the audience for what you're writing, and when you're getting feedback on it, am I writing for myself, am I writing for my course instructors". Diana shared Stompy's frustration, "I thought I was writing for myself, so even sharing your experience it takes like a little time to express, are you allowed to share your experience, are you allowed to use the tone I in your papers".

Apollo explained his growing understanding of how he must write for certain audiences, thinking about the audience, the journal that I'm writing for, the conference I'm writing for, the people I'm writing for, you know postmodern people are going to get that so they'll be more ok with liberties in writing, quantitative people...are not going to be ok with that...

Adam expressed the disconnect he felt between writing for instructors and writing for publication as an emerging PhD student,

sometimes I feel like my instructors or supervisor understand my way of academic writing because we have developed this kind of relationship so I can explain why I am doing it this way, but then when I think of sending something to publication, how will these reviewers who don't have any kind of connection with me understand why I am doing it this way and not the other way.

Humphrey weighed in on this issue and connected writing one's thesis with writing for a journal,

at a dissertation level I would suspect your supervisor and that group would be the ones you have to please so you have to figure out what their style is, what their strengths are, and what their standards are, but if you're writing an article, you have to know your audience, their context, who is going to be reading it.

Humphrey summed it up in his narrative, “As I continue to develop as an academic writer I plan to spend more time improving my skill in the area of pathos as it can be a powerful supplement to the logos and ethos components”.

Kairos: “There is a time and place for what you're going to do” (Stompy)

Writing for different disciplines and contexts requires appropriate style and language for strengthening voice in particular situations, as observed by Rowan,

the more I read the less I know which one I stick to because there are so many different ways you can ask a question and the stuff I am looking at...if I sit over here then I can have this conversation with this group of people about this particular thing, but maybe that's not as important as sitting over here and having this other conversation about this thing with these particular people, and the small changes that you make, even if you're not switching from one entire format to another really does have impact on whether your argument is going to land with that group of people.

Stompy questioned the necessity of being able to write for different purposes,

do PhD students and do academics need to be well versed in all different forms of writing, or do we just need to do what we plan to be, where we plan to go in terms of writing, because our course work seems to be everything, at least in introductory research methodology, you kinda' go through everything, but the writing is different in all the little arenas, but yet I just want to focus on ONE, and I'm not sure I'm given the opportunity or allowed to do that, and that's a bit of a struggle.

Knowing how to write one's argument and for whom was recognized as an accepted part of academic writing, but was thought of as somewhat disconcerting. Rowan wrote, “it is perhaps because of my histories with interdisciplinarity that I find it very difficult to understand what kinds of arguments, evidence, and extrapolation are legitimate”. However, Apollo reflected in his narrative that “productive writing is not about being able to fit into a mould, that our pieces will never fit into every journal”. While one might see pathos in the following quote, Stompy's example is more about timing and appropriateness:

in academic writing, to choose when that time is appropriate, and I think about my own situation and recent conference and whether my audience is going to, not just accept, but also to consider what I have to say and what I have to write.

Apollo wrote about the relationship between kairos and getting published, bringing time into the context along with appropriateness of the argument to specific audiences.

Timing can depend on current events, on the perceptions within the field, or how saturated an area is or isn't which impacts if things get accepted or not. Of course, that list is not exhaustive, but overall I found *kairos* to be especially applicable to the publishing process for learning how and when to go after an idea or a topic.

Several students had uncertainties about this aspect of writing. Stompy revealed in his narrative, "my dilemma is how much I need to spell out for my audience and how much do I expect them understand before reading my work". Rowan commented on the ability to know "the small ways you can make an argument that makes it sound fundamentally different at the end of the day". And Apollo ruminated in his narrative that "if *kairos* is about timing and appropriateness, then I found that both are dependent on planning and flexibility". Humphrey summed it up neatly with "the concept of *kairos* will require attention from me as the balancing of logos, ethos, and pathos within a piece of writing will be heavily dependent on context and timing".

The Role of the Affective Domain: "You have to choose your master or pick your poison" (Humphrey)

Students were no longer feeling confident as writers, or at least thought they were being made to feel as if they could not write as well as before beginning their programs. They groaned that writing can be "hard on the ego". Apollo said some comments made them feel like their "writing is crap" and resulted in some students feeling reluctant to give their writing to others, particularly faculty, to read. Rowan remarked, "I am not able to express myself because of this fear that I'm wrong". Rowan even used the word "stupid" when describing his feelings after receiving feedback, "I have never felt more stupid than trying to write for publication as a PhD student because all this stuff that I thought I knew is like, No, you don't know jack all". And, Stompy wrote, "it is ... fascinating that while I educate budding pharmacists in oral and written communication, the academy makes me feel vulnerable about my writing".

Students, during the discussions, interspersed their comments with emotional statements, even though they were only asked about feelings during the "red hat" discussion prompt. They agreed that writing is an emotional process as well as a cognitive challenge. Diana stated,

it's a very emotional process, like when you get feedback, it takes time to sink in because you feel you have given all your effort and then when you see it all shredded apart you don't, so it is an emotional process, but then at the back of your mind you know that this is learning, but yeah it is emotional, too.

Thus, students thought of writing as a “vulnerable practice” (Apollo). Rowan expressed the following, but the others agreed and laughed as he spoke for them all,

it’s very hard on the ego to come from, I’ve been told I’m a good writer and then I come to the PhD program and hmm no, this is crap, hmmm no this is crap, and bless the people around me who have not come out openly and said my work is crap, but you can hear what is underlying it all.

Students had a few positive thoughts about their doctoral writing experiences, but they were minimal. They included the chance for self-expression, a form of therapy, increased understanding of what they were reading, forced organization of thoughts, and getting your ideas “out there”. Adam said it gave him “presence” as a writer, and several discussed how they were happy that writing makes your thoughts real, resulting in a tangible product. Diana described how the writing group helped in overcoming being “lonely and emotional”. And Rowan, on a positive note, shared,

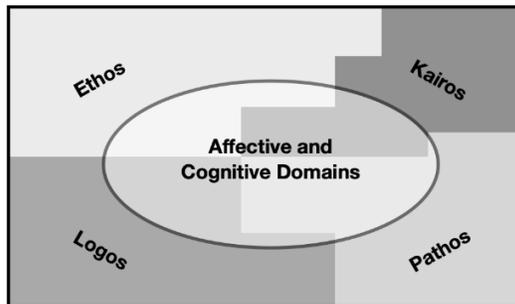
it’s nice, when you write a paper it’s done, and you print it off and you can hold it and touch it in a way, I always hug my papers afterward, there’s something very nice and tangible and concrete (Adam –yeah) that you don’t get in other modes of communication.

In addition, Humphrey acknowledged that “writing is a means to help you better understand what you are reading, through critical analysis, to sometimes choose a side or at least force oneself to side with an opinion or data”. Apollo described his writing as “something you can touch and feel versus thoughts and conversations that kind of float in the air”. Rowan summed it up, “it’s really exciting to think of the ability to propel the ideas that I care about in the world through this particular mechanism in addition to the other ways I try to talk and unpack and explore the same ideas”.

## The Rhetorical Rectangle

The students assigned rankings to the four elements, and Humphrey and Stompy used these rankings to create a two-dimensional rhetorical rectangle model. For our rhetorical rectangle we situate writing in the intertwining of the four elements that are dependent upon each other (see Figure 1). As Figure 1 depicts, the four elements contribute substantially to academic writing. They work in complementarity with each other and meet in the middle to illustrate how they have discrete characteristics but are interdependent. Furthermore, the affective and cognitive domains are imbued within the elements of the rhetorical rectangle.

Figure 1. The Rhetorical Rectangle



## Pedagogical Implications and Concluding Thoughts

Writing as a process is a vital part of doctoral education. Many graduate students struggle to understand the writing process and sometimes find it challenging to meet academic writing requirements, which differ from one institution to another, from one discipline to another, and even one supervisor to another. Not only is writing a cognitive process, but it has been an emotional process for these students. Prior to their doctoral programs these students had self-confident identities, but as first and second year PhD students they were not sure where they belonged in the academic world of writing.

These students have conveyed powerful messages for those who work with PhD students, as supervisors, instructors, and mentors. The rhetorical rectangle—logos, ethos, pathos, and kairos—should be explicitly acknowledged, including the interplay of these four elements. These four elements contribute as much to student writing and emotional well-being as any form of graduate instruction. We recommend that these elements of writing should be discussed with doctoral students as a crucial part of the pedagogical practices of immersing doctoral students into the discourse of scholarly writing. We also emphasize the role of the affective domain to writing, and argue that the rhetorical rectangle provides a framework that allows the affective and the cognitive to intertwine.

From a pedagogical perspective, if instructors emphasize, as an example, ethos-based errors such as diction or style, it may lead students to think that these are the most important things and that their piece of writing is static or “frozen in time” (Harker, 2007, p. 88). Harker argued for incorporating kairos in feedback to “signal to our students that both they and their readers know precisely what is at stake in their writing” (p. 94). It requires that educators think about kairos and

incorporate it into assessment and feedback. They should think about the different contexts and the influences of the contexts.

We also need to consider the perspective of students reading academic literature, as reading and writing are expectations for doctoral students. Lukas and Personn (2019) suggest encouraging students to analyze what they are reading with respect to purpose, audience, and situation, so that students can see context, rather than just looking for the logos or logic in arguments. They also need to think explicitly about the ethos, pathos, and kairos of the arguments they are reading.

The notion that writing can be as intrinsically affective as cognitive is central to the arguments we put forth. The rhetorical rectangle—logos, pathos, ethos, and kairos—as lived and exemplified by these PhD students portrays a picture of how not only writing products, but also student emotions, are part of the broader context of academic expectations, rules, and inculturation.

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