



Shifting Conceptions of Academic Writing: Lessons Guided by Variation Theory

Suciyati Haji Sulaiman*

suciyati.sulaiman@ubd.edu.bn

English Language & Communication Skills, Language Centre
Universiti Brunei Darussalam, Brunei Darussalam

Liyana Haji Abdul Ghani

liyana.ghani@ubd.edu.bn

English Language & Communication Skills, Language Centre
Universiti Brunei Darussalam, Brunei Darussalam

Corresponding author*

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ABSTRACT

This study investigates shifts in students' conceptions of academic writing after a series of lessons designed using variation theory. Academic writing, often perceived as complex and inaccessible, is an essential skill in higher education. To better understand how students' perceptions evolve, a pre- and post-survey approach was employed. Students were asked to choose from three conceptions of academic writing: (1) a higher-level form of writing characterised by complex language and requiring evidence from sources, (2) a well-structured form of communication that conveys reliable information, and (3) a means of expressing ideas and expanding knowledge. Throughout the semester, lessons focused on helping students discern critical aspects of academic writing such as structure, coherence, and integration of sources. The application of variation theory allowed students to compare and contrast these aspects, fostering deeper understanding. The findings revealed a notable shift in students' conceptions, with many moving from an initial focus on surface-level features, such as complexity and formality, to a more nuanced understanding of writing as structured communication. This shift underscores the value of lessons grounded in variation theory in promoting conceptual change. The study offers important implications for



academic writing instruction and highlights the need for pedagogical strategies that address students' evolving conceptions.

Keywords: Academic Writing, Students' Conceptions, Variation Theory, Phenomenography

INTRODUCTION

Most universities regard the ability of writing an academic paper as a valuable skill to possess (Bruce, 2008; English, 2011), as most assessments at these universities require students to produce an academic paper. Academic writing is an integral part of being a university student—an academic—as writing is one of the means for a student to be able to express their opinions, share their thoughts, and, most importantly, deepen their knowledge of a certain subject or discipline. At university level, students are expected to not only apply learnt skills, they are expected to be able to form an opinion, and to create and contribute knowledge to existing ones in the academic context. This thus enables students to develop critical thinking, and they should be able to use academic writing to effectively communicate their ideas and arguments to a wider audience.

The context of this study is at Universiti Brunei Darussalam, nationally known as UBD. Although the education system in Brunei implements the English language as the medium of instruction, the country still maintains the Malay language as the first and official language. Thus still making English the second or working language in the country. Hence, writing in the English language, particularly for those whose first language is not English, is considered to be a complex and difficult skill to master (Gilquin & Paquot, 2007). Furthermore, academic writing itself is even more complex (English, 2011; Gilquin & Paquot, 2007), as an essential element of academic writing is research, with the inclusion of claims and opinions. The majority of undergraduates at the university consists of local students, and it was observed that they lacked the skills in expressing their opinions using the academic conventions. This observation has led to discussions amongst university teaching staff implying that these students lack critical thinking. However, it was also argued that it may be due to the lack of acquired specialised vocabulary that is needed to express one's own opinion, especially in an academic context (Gilquin & Paquot, 2007), which subsequently usually leads to a piece of writing that lacks coherence and cohesiveness. Hence, the study is motivated to explore students' understanding of academic writing, and the potential strategies in teaching that may improve their comprehension to enhance the quality of their written work so that it meets the expectations of academic writing.

There have been a number of studies conducted concerning the need to improve or enhance the academic skills of students, especially of those for whom English language is not their first language. However, many of these studies identified and focused on the language ability of students, such as by focusing on grammar aspects, as well as critical thinking. The focus of this study, on the other hand, is to investigate students' conception of academic writing and, from understanding students' conception, attempt to teach lessons that are guided by variation theory in order to change or improve the students' conceptions of academic writing, and consequently to enhance their academic writing skills.



The diversity in students' conceptions of academic writing is influenced by prior educational experiences, linguistic backgrounds, and exposure to academic discourse. While some students may view academic writing as a formulaic exercise focused on adhering to conventions, others may perceive it as an opportunity to explore and communicate ideas. Such varied conceptions highlight the need for educators to understand students' perspectives as a foundation for effective instruction. Addressing these conceptions is crucial for equipping students with the skills and confidence to navigate academic demands. Failure to do so can result in surface-level engagement with writing tasks, limiting students' ability to develop critical thinking and analytical skills.

This study recognises the importance of understanding and addressing students' initial conceptions of academic writing. By doing so, educators can identify specific areas where intervention is needed and design targeted strategies to foster deeper understanding. Academic writing pedagogy should not only focus on imparting technical skills but also aim to reshape students' perceptions, enabling them to see writing as a meaningful process of constructing and communicating knowledge.

This study explores how students' conceptions of academic writing evolve over a semester of targeted instruction. The primary research question guiding this investigation is:

How do students' conceptions of academic writing change after targeted lessons guided by variation theory?

This question is underpinned by the idea that learning involves shifts in understanding and that such shifts can be facilitated through intentional instructional design. Specifically, the study examines whether students move from surface-level conceptions—such as viewing academic writing as complex or formulaic—to deeper conceptions that emphasize clarity, structure, and knowledge communication.

By addressing this research question, the study aims to contribute to a growing body of literature on academic writing pedagogy. It seeks to provide insights into how pedagogical interventions informed by variation theory can facilitate conceptual change and enhance students' ability to meet the expectations of academic writing.

Theoretical Framework

This study is grounded in variation theory, a pedagogical framework rooted in phenomenography that emphasises how learning occurs through the discernment of critical aspects of a phenomenon (Marton & Booth, 1997). Variation theory posits that learning takes place when learners experience and discern variations in the critical features of the object of learning, thus enabling a deeper understanding of the concept being studied (Orgill, 2012). In the context of this study, the object of learning is academic writing, and the critical aspects include structure, coherence, argumentation, and the integration of evidence.

A key tenet of variation theory is that students' understanding of a concept is shaped by their ability to distinguish between essential and non-essential features of the concept (Kullberg et al., 2017).



For academic writing, this involves differentiating between superficial attributes, such as the use of complex vocabulary, and deeper attributes, such as constructing well-supported arguments and maintaining coherence in presenting ideas. By experiencing deliberate contrasts and variations, students are guided to focus on critical aspects, thereby fostering conceptual change and deeper learning.

Sulaiman's (2022) work on students' conceptions of academic writing further underpins the theoretical foundation of this study. Sulaiman (2022) identified four distinct conceptions of academic writing, ranging from surface-level views emphasizing complexity to deeper views focusing on communication and the construction of knowledge. For this study, three of Sulaiman's (2022) conceptions were adapted and refined as predetermined categories to assess students' perceptions:

Conception 1: Academic writing is seen as a higher-level type of writing with complex words and sentences and needs evidence and support by other sources.

Conception 2: Academic writing is seen as well-structured writing with reliable information to be conveyed to readers.

Conception 3: Academic writing is seen as a way to communicate one's ideas and to widen one's knowledge.

The adaptation of these conceptions aligns with the study's objectives, as these categories reflect varying levels of understanding and serve as a framework for examining shifts in students' conceptions. The selection of three conceptions allowed for a focused analysis, with the aim of examining how lessons informed by variation theory could facilitate changes in students' understanding of academic writing.

Application of Variation Theory in Lesson Design

In this study, variation theory informed the design of lessons to address students' initial conceptions of academic writing. Lessons were structured to expose students to deliberate contrasts and patterns of variation, targeting critical aspects of academic writing. For example:

1. Students compared well-structured and poorly structured texts to discern how organisation affects clarity.
2. They evaluated arguments with and without supporting evidence to understand the importance of evidence-based reasoning.
3. Activities encouraged reflection on how coherence and logical flow enhance the readability and persuasiveness of a text.

These tasks were designed to shift students' focus from superficial elements of academic writing, such as the use of complex vocabulary, to deeper, more meaningful aspects, such as clarity, argumentation, and effective communication of ideas.

This theoretical framework aligns with the study's focus on conceptual change, aiming to challenge and expand students' existing perceptions of academic writing. By systematically



presenting variations and contrasts, the lessons sought to help students discern critical aspects and adopt a more nuanced understanding of academic writing.

The study hypothesizes that the application of variation theory would lead to measurable shifts in students' conceptions of academic writing, as evidenced by changes in their pre- and post-survey responses. These shifts are expected to reflect a transition from surface-level understandings to deeper, more integrated views of academic writing. Furthermore, this framework emphasizes the value of designing learning activities that promote discernment of critical aspects, providing a model for educators seeking to improve students' conceptual understanding in academic writing and beyond.

By incorporating Sulaiman's (2022) conceptions and applying variation theory, this study addresses gaps in existing research, particularly in examining how pedagogical interventions influence longitudinal shifts in students' understanding of academic writing. This contributes to the growing body of research on improving teaching practices in higher education, particularly in the realm of academic literacy.

Significance of The Study

This study contributes to the broader discourse on academic writing pedagogy by demonstrating the potential of variation theory to address misconceptions and promote deeper learning. While many studies have explored the challenges students face in academic writing, fewer have focused on how targeted interventions can shift their conceptions over time. By examining these shifts, the study offers valuable insights for educators seeking to enhance the effectiveness of their teaching practices.

Ultimately, understanding and addressing students' conceptions of academic writing is not only a pedagogical challenge but also an opportunity to empower students. By fostering deeper understanding and confidence in their writing abilities, educators can help students engage more fully with academic discourse and achieve greater academic success.

LITERATURE REVIEW

Students' Conceptions of Academic Writing

Conception is considered to be an important notion in the research of teaching and learning (Ma, 2018). Conception can be defined as a shared understanding of a 'concept' and one's personal and variable response to a concept – their conception (Entwistle & Peterson, 2004). In particular, experiential conceptions are developed in particular circumstances of contexts, and thus linked to situations in one's mind. Hence, students' conception of knowledge is developed progressively through their educational experiences (Entwistle & Peterson, 2004).

Understanding students' conceptions of academic writing has been a focus of numerous studies, as these conceptions significantly shape how students approach writing tasks. Research has shown that students often enter higher education with fragmented or surface-level understandings of



academic writing. For instance, Lea and Street (1998) highlight the challenges students face when transitioning to academic writing, noting that many perceive it as a technical skill requiring mastery of specific formats rather than a process of constructing and communicating knowledge. Similarly, studies by Wingate (2012) emphasize that students frequently struggle with integrating evidence and crafting coherent arguments, focusing instead on formal aspects such as grammar and citation styles.

Conceptions of academic writing can be broadly categorised into surface-level and deep-level approaches. Surface-level conceptions emphasize formal attributes, such as using complex vocabulary, adhering to rigid structures, or fulfilling institutional expectations. In contrast, deep-level conceptions view academic writing as a process of critical engagement, argumentation, and knowledge creation. Identifying where students fall on this spectrum is crucial for designing interventions that address their specific learning needs. However, while much of the literature describes these conceptions, fewer studies explore how students' conceptions evolve over time and in response to targeted instructional interventions.

Generally, conceptions of academic writing refer to the beliefs, ideas or, in other words, mental models that students have about what academic writing entails, and these conceptions include how students define academic writing, what they believe are the key characteristics, and what they think is required for them to successfully write academically. Students conceptualize academic writing in diverse ways and are influenced by varying factors. Firstly, some students may view academic writing as a formal, rule-based task that requires them to adhere to specific conventions and standards of writing. This conception may be influenced by their prior experiences with writing instruction and feedback. In the study of Ma (2018), they found that the students understood academic writing to have specific characteristics and the need to use formal words, referring to them as “academic words” within their writing. Secondly, other students may conceptualize academic writing as a creative and expressive process which allows them to convey their ideas and arguments in a unique and engaging way. This conception may derive from their personal preferences and writing style. The findings of Light (2002) found that students prefer creative writing over essay writing as the former allows students to be more expressive in their writing and add on their personal touches, whereas essay writing was seen as limiting, with students feeling that they are unable to be expressive in their writing due to the certain conventions that they need to adhere to. Furthermore, the results of the study found that student experiences in higher education involved them conceptualizing their study and writing activities in distinct and different ways, which teachers may not be aware of and may have an implication pedagogically. This was mainly due to the two main categories identified as meaning-using and meaning-making, where it is believed that creative writing provides the students with opportunities that permit them to access a more private, personal and emotional reality for their ideas and materials. In other words, students are able to make meaning out of what they are being instructed to do, as opposed to academic writing or essay writing where it was expressed that students found it a challenge to complete the task, limiting their abilities to make meaning of the task. Therefore, it was suggested that essay writing should be of more relevance to the students where they are able to access their prior knowledge or experience in completing the task given, as this was evident in students being able to transform materials and make meaning in their learning. Thus, it is important that the topic to be written about be their chosen topic, in order to maintain their motivation in writing—in



Phenomenography and Variation Theory in Educational Research

Phenomenography provides a methodological framework for examining how individuals experience and understand phenomena, making it a valuable approach for studying conceptions of academic writing. Studies employing phenomenography have revealed the diversity of student perspectives on academic tasks. For example, Marton and Booth (1997) argue that learning involves a shift in awareness, where students discern critical aspects of a concept or skill. This framework has been widely applied in educational research to explore variations in students' experiences and to design teaching interventions that promote deeper learning.

Building on phenomenography, variation theory focuses on how learning occurs through the discernment of differences and contrasts. According to Marton and Tsui (2004), presenting students with opportunities to experience variation—such as comparing effective and ineffective examples—can enhance their understanding of the critical aspects of a concept. In the context of academic writing, this might involve contrasting well-structured and poorly structured essays or analysing arguments with and without supporting evidence.

Several studies have applied variation theory to improve students' understanding of complex concepts. For example, Pang and Marton (2003) demonstrated its effectiveness in teaching economics, where students learned to discern critical features of economic models through structured variations. In language education, Lam and Tsui (2013) used variation theory to improve students' comprehension of Chinese characters by presenting them with contrasting examples. However, relatively few studies have applied variation theory specifically to academic writing, representing a significant gap in the literature.

In this study, phenomenography is employed as the main theoretical framework in order to identify and describe the qualitative variations of students' experience and understanding of academic writing. Hence this can be denoted as students' conceptions—way of making sense of a certain phenomenon—and, in phenomenography, students' conceptions are in the form of categories of descriptions which describe different ways of experiencing a phenomenon (Reed, 2006). It is important for educators to know what students understand about a concept as well as how they understand it; in the case of this study: what is academic writing, and how do they write academically. Through understanding the conceptions of students on academic writing, educators will be able to facilitate students' learning, focusing on the aspects needed for students to be able to write academically.

Addressing Gaps in the Literature

While existing research has provided valuable insights into students' conceptions of academic writing, there is limited understanding of how these conceptions change over time and in response



to pedagogical interventions. Most studies focus on static conceptions, offering snapshots of students' perspectives at a single point in time. This approach overlooks the dynamic nature of learning and the potential for shifts in understanding when students are exposed to targeted teaching strategies.

Furthermore, while phenomenography has been widely used to explore students' experiences, its application to longitudinal studies of conceptual change remains underexplored. Similarly, variation theory, despite its proven effectiveness in other domains, has been underutilised in academic writing pedagogy. This study seeks to address these gaps by investigating how students' conceptions of academic writing evolve over a semester of lessons informed by variation theory.

By combining phenomenography and variation theory, the study offers a unique perspective on conceptual change in academic writing. It examines not only the diversity of students' initial conceptions but also the processes through which these conceptions shift in response to deliberate instructional design. This longitudinal approach provides insights into how educators can foster deeper understanding and help students move from surface-level to more sophisticated conceptions of academic writing. By addressing these gaps, this study contributes to the growing body of research on effective teaching strategies and provides practical implications for improving academic writing instruction.

METHODOLOGY

Participants

The participants in this study consisted of 189 undergraduate students enrolled in the LE-2503 module at Universiti Brunei Darussalam (UBD). The module, a compulsory breadth course with a total enrollment of 235 students, was taken by students from various faculties, ensuring a diverse sample representing different academic backgrounds, disciplines, and levels of prior experience with academic writing. Participation in the study was voluntary, and 189 students opted to complete the survey. This voluntary nature ensured that only students who were willing to engage with the research process contributed to the data. The varied academic contexts of the participants added depth to the analysis, as their conceptions of academic writing were shaped by their unique educational experiences. Prior to the commencement of the module, students were informed about the study and invited to participate by logging into the surveys. Measures were taken to ensure the students' privacy and data confidentiality was maintained throughout the research process.

Survey Instrument

The primary instrument used for data collection was a structured survey designed to capture students' conceptions of academic writing. The survey was developed and refined based on the conceptions identified by Sulaiman (2022):

Conception 1: Academic writing is seen as a higher-level type of writing with complex words and sentences and needs evidence and support by other sources.



Conception 2: Academic writing is seen as well-structured writing with reliable information to be conveyed to readers.

Conception 3: Academic writing is seen as a way to communicate one's ideas and to widen one's knowledge.

The survey began with an open-ended question asking students to briefly describe, in their own words, what academic writing meant to them. This question aimed to capture their spontaneous and personal interpretations of the concept before introducing the predefined categories. Students were then asked to select one of the three conceptions that best aligned with their understanding of academic writing. Additionally, the survey included a section where students rated the importance of specific features of academic writing, such as coherence, argumentation, evidence integration, structure, and clarity. These ratings provided complementary insights into how students prioritised different aspects of writing, further enriching the analysis of their conceptions.

Teaching Intervention

The teaching intervention was designed to address the critical aspects of academic writing using patterns of variation, as outlined by variation theory. The intervention spanned 14 weeks, with weekly lessons aimed at fostering deeper understanding and encouraging shifts in students' conceptions. The lessons targeted specific critical aspects of academic writing, including:

Structure and Coherence: Activities focused on identifying and constructing well-structured essays, with attention to logical flow and paragraph organisation.

Integration of Evidence: Students analysed texts with varying levels of evidence support, contrasting effective and ineffective examples to discern the importance of substantiating claims.

Clarity and Precision: Tasks involved comparing texts with clear and unclear language, highlighting how precision in language affects readability and argument strength.

Purpose and Audience: Students explored how academic writing serves as a means of communication, emphasising the need to adapt writing to effectively convey ideas to a scholarly audience.

The lessons employed a mix of individual exercises, group discussions, and peer feedback sessions. For example, students were tasked with revising poorly structured paragraphs, identifying weaknesses in arguments, and discussing how to improve them. Variations were intentionally designed to emphasise contrasts, enabling students to discern what constituted effective academic writing. To ensure alignment with variation theory, each lesson incorporated deliberate patterns of variation (Cheng, 2016), such as:

Contrast: Presenting examples of strong and weak writing to highlight differences.

Generalization: Applying learned concepts to various writing tasks to understand their broader applicability.

Separation: Focusing on one critical aspect at a time, such as argument structure or evidence use.



The intervention also included reflective activities where students revisited their initial conceptions and compared them with their evolving understanding, fostering metacognitive awareness of their learning journey.

Data Collection

The study adopted a pre- and post-survey design to capture changes in students' conceptions of academic writing over the semester.

Pre-Lesson Survey: The pre-lesson survey was administered at the start of the semester, prior to any instructional intervention. Students were asked to complete an open-ended question, select their conception of academic writing, and rate the importance of specific features. This baseline data provided insights into their initial perspectives and priorities.

Post-Lesson Survey: At the end of the semester, after 14 weeks of targeted instruction, students completed the same survey. The consistency of the survey design ensured comparability between the pre- and post-survey responses, enabling an analysis of longitudinal shifts in students' conceptions.

The survey responses were collected and anonymised to protect students' identities. Quantitative data from the conceptions and feature ratings were analysed using descriptive and inferential statistics to identify patterns and changes over time. Qualitative responses to the open-ended question were thematically analysed to explore nuanced shifts in students' interpretations of academic writing.

Analysis of Shifts

The analysis focused on identifying movements between the three predefined conceptions of academic writing. For example, students who initially viewed academic writing as a higher-level form of writing requiring complex language (Conception 1) and later identified it as a well-structured communication of reliable information (Conception 2) were classified as having undergone a conceptual shift. Similarly, changes in the ratings of writing features provided additional evidence of evolving priorities and understanding.

By integrating quantitative and qualitative data, the study aimed to construct a comprehensive picture of how students' conceptions of academic writing developed throughout the intervention. Hence, the mixed-methods approach allowed for a nuanced exploration of students' conceptions of academic writing and their evolution over time. The combination of surveys, targeted teaching interventions, and robust data analysis provided a comprehensive framework for understanding and addressing students' learning needs in academic writing.



FINDINGS

Pre-Lesson Survey Results

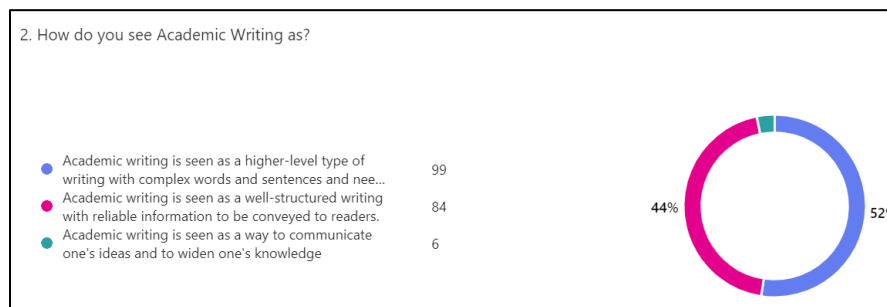


Figure 1. Pre-Lesson Survey

The pre-lesson survey (Figure 1) revealed significant insights into students' initial conceptions of academic writing. Among the 189 participants, a majority (52%, or 99 students) selected Conception 1, *"Academic writing is seen as a higher-level type of writing with complex words and sentences and needs evidence and support by other sources."* This conception represents a surface-level understanding, where students associate academic writing primarily with linguistic complexity and the inclusion of external evidence. A smaller but substantial proportion (44%, or 84 students) chose Conception 2, *"Academic writing is seen as a well-structured writing with reliable information to be conveyed to readers."* This conception reflects a more sophisticated understanding, emphasizing the importance of structure and reliability in academic communication. The least selected conception, Conception 3, was chosen by only 6 students (3% of the cohort). This conception, *"Academic writing is seen as a way to communicate one's ideas and to widen one's knowledge,"* represents a deeper, more meaningful view of academic writing as a tool for intellectual engagement and knowledge dissemination.

This distribution underscores the predominance of superficial conceptions among students before the intervention. The calculated mean of the pre-lesson responses was 1.51, with a standard deviation of 0.56. This indicates that most responses were concentrated around Conception 1, with some degree of variability reflecting the presence of students choosing Conceptions 2 and 3.

Post-Lesson Survey Results

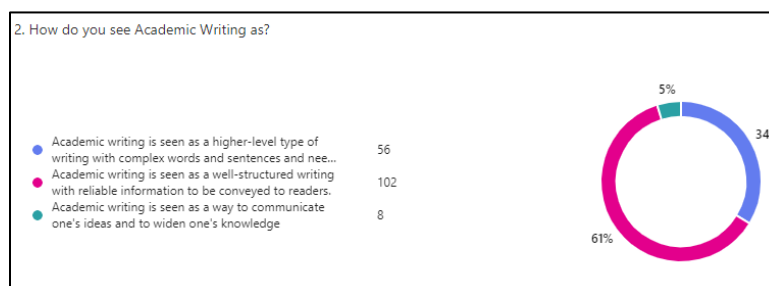


Figure 2. Post-Lesson Survey



At the end of the semester, 166 students completed the post-lesson survey, reflecting a decrease in participation but yielding valuable insights into the impact of the lessons guided by variation theory. Following the intervention, the post-lesson survey results highlighted a noticeable shift in students' conceptions of academic writing. The majority (61%) of students selected Conception 2, reflecting a more advanced understanding of academic writing as structured and reliable communication. Meanwhile, 34% of students remained with Conception 1, and 5% progressed further to Conception 3. The results (Figure 2) demonstrated a clear shift in students' conceptions:

34% (56 students) selected *Conception 1*, indicating a decline from the initial 52%.

61% (102 students) chose *Conception 2*, a significant increase from the initial 44%.

5% (8 students) selected *Conception 3*, a slight increase from the initial 4%.

The mean for the post-lesson responses increased to 1.71, with a standard deviation of 0.55. This upward shift in the mean indicates progress in the students' overall understanding of academic writing, moving toward more meaningful conceptions. The consistency in standard deviations before and after the intervention suggests that, while most students shifted to Conception 2, a portion of the cohort still exhibited varying degrees of understanding.

These findings suggest that the lessons successfully guided a substantial portion of students away from a surface-level understanding (Conception 1) toward a more structured and functional perspective of academic writing (Conception 2). The modest increase in students selecting Conception 3 indicates that, while some students attained a deeper understanding, achieving this level remains a challenge that requires continued instructional efforts.

DISCUSSION

Connection to Variation Theory

Variation theory, which underpins this study, focuses on the idea that learning occurs when students are exposed to different aspects of an object of learning (Marton & Booth, 1997), allowing them to discern the critical features of that object. In the context of academic writing, the "object of learning" encompasses the essential aspects of writing that students need to recognise in order to develop a sophisticated understanding of the practice. These aspects may include structure, clarity, evidence, reliability, and the ability to communicate ideas effectively.

The lessons designed for this study were guided by the principles of variation theory, which emphasize the need to present different examples of academic writing (Cheng & Ho, 2008), each highlighting a different aspect or feature. By doing so, students were able to perceive and distinguish between the various dimensions of academic writing, such as the relationship between form and content, the role of evidence, and the importance of clarity and coherence. The lesson design incorporated contrasts between good and weak examples of academic writing, highlighting both the presence and absence of critical features, thereby fostering students' ability to discern the relevant aspects of high-quality writing.



As a result, the shift observed in students' conceptions—from a surface-level focus on linguistic complexity and external evidence (Conception 1) to a more structural and communicative understanding (Conception 2)—can be interpreted as a direct outcome of the exposure to these varied examples. The variation in lesson delivery prompted students to reconsider their initial, limited understanding of academic writing and engage with its more complex dimensions, leading to a more holistic conception.

The modest increase in students selecting Conception 3—which views academic writing as a tool for communicating one's ideas and broadening knowledge—suggests that, while variation theory was effective in fostering shifts toward a more structured understanding of writing, fostering a deeper, more intellectual view of writing remains challenging. This implies that variation theory can facilitate initial shifts in conceptions; however, the relatively small proportion of students progressing to Conception 3 suggests that further instructional strategies may be required to fully cultivate higher-level, reflective conceptions of academic writing.

Implications for Teaching and Practice

The findings from this study provide important insights for teaching practices, particularly in the context of academic writing instruction. It underscores the importance of addressing students' initial conceptions and designing lessons that explicitly target critical aspects of academic writing. The findings also highlighted the potential of variation theory as a guiding framework for instructional design, particularly in helping students discern deeper attributes of academic writing beyond surface-level features.

Targeted Instruction on Critical Aspects

One of the key implications of this study is the importance of explicitly addressing and targeting critical aspects of academic writing. By using a variation approach to highlight these aspects, educators can help students focus not only on the superficial elements of writing such as vocabulary and grammar, but also on the deeper, more essential features such as structure, coherence, and argumentation. This approach can enhance students' understanding of writing as a tool for knowledge communication rather than merely a task of following linguistic conventions.

Incorporating Examples and Contrasts

Teachers should integrate multiple examples of academic writing—both strong and weak—into their lessons. By providing students with contrasting examples, educators help them develop the ability to discern what makes academic writing effective. This exposure to variation in writing examples encourages students to recognise the relationship between content and form and to appreciate how these aspects work together to create successful academic communication.

Sustaining Shifts in Conceptions

While this study demonstrates that shifts in conceptions of academic writing can occur within a semester, it also highlights the challenge of achieving deeper conceptions. Thus, educators should consider incorporating ongoing opportunities for students to engage with academic writing beyond



a single course or semester. This could involve follow-up lessons, peer reviews, and continued writing practice, which would allow students to reinforce and expand upon their understanding of academic writing as they encounter new contexts and challenges.

Individualized Support for Diverse Conceptions

The diversity of conceptions observed in the pre-lesson survey, as well as the persistence of surface-level understandings in some students after the intervention, suggests that further individualised support is necessary. Educators should be prepared to offer additional scaffolding for students who struggle to make the conceptual shift, providing them with more focused feedback and additional resources to support their development. This might involve one-on-one tutoring, writing workshops, or supplemental materials that address specific areas where students show difficulty.

Implications for Future Research

This study also opens several avenues for future research in the field of academic writing instruction, particularly concerning the application of variation theory and the development of students' conceptions of writing.

Longitudinal Studies on Conceptual Shifts

One area for future research could involve longitudinal studies that track students' shifts in conceptions of academic writing over an extended period of time. This would allow researchers to examine whether the shifts observed in this study are sustained over the long term or if they revert as students move to new learning environments. It would also help to identify the factors that contribute to the persistence or decay of these shifts and whether further interventions are necessary.

Exploring the Role of Feedback in Conceptual Change

Future research could explore how feedback, both from instructors and peers, influences students' conceptions of academic writing. Investigating the types of feedback that are most effective in promoting deeper conceptual understandings could offer valuable insights for instructional design. Additionally, examining how students apply feedback over time could shed light on whether the shifts in conceptions translate into improved writing outcomes.

Deeper Exploration of Higher-Level Conceptions

Finally, future studies could investigate the challenges and barriers that prevent students from developing higher-level conceptions of academic writing, such as those represented by Conception 3. Understanding why some students are more likely to see academic writing as a tool for intellectual engagement while others remain focused on its technical aspects could provide valuable insights into the cognitive processes underlying writing instruction. Interventions could then be designed to target these specific barriers to foster deeper learning.



Student-Centered Approaches and Agency

Further research could explore how students' personal interests, prior experiences, and cultural backgrounds influence their conceptions of academic writing. Understanding how students' agency and motivation affect their learning trajectories could help refine variation theory-based teaching methods to be more responsive to individual learner profiles, enhancing the overall learning experience.

CONCLUSION

This study set out to explore how the application of variation theory could influence students' conceptions of academic writing and facilitate a shift from surface-level to deeper understandings. By examining undergraduate students enrolled in the LE-2503 module, the study revealed that while the initial majority of students viewed academic writing primarily as a complex, higher-level form of writing requiring sophisticated vocabulary and evidence (Conception 1), there was a measurable shift towards a more structured and purposeful view of academic writing as a means to convey reliable information effectively (Conception 2) following the intervention.

Although the shift may appear modest, the findings underscore the potential of variation theory to guide students' discernment of critical aspects of academic writing. The lessons, carefully designed to expose students to patterns of variation, successfully challenged their pre-existing perceptions by emphasizing deeper attributes such as structure, coherence, and the integration of evidence. This aligns with the theory's emphasis on fostering learning through the discernment of key differences and variations, illustrating its value as a pedagogical tool in higher education.

The significance of these findings lies not only in the demonstrated shifts in students' conceptions but also in the broader implications for teaching academic writing. The study highlights the importance of moving beyond traditional, surface-level approaches to writing instruction, advocating instead for a more nuanced and conceptual approach that helps students internalise the essential elements of effective academic writing. This shift, even if incremental, has the potential to translate into long-term improvements in students' ability to produce coherent and well-structured academic texts, ultimately enhancing their academic performance and communicative competence. Furthermore, this study contributes to the growing body of research on the application of phenomenography and variation theory in academic literacy development, offering evidence-based insights for educators. It demonstrates how a theoretically grounded approach can address gaps in students' understanding, laying the foundation for more meaningful learning experiences.

In conclusion, while the shift observed in this study may be modest, it underscores the potential of variation theory to inform teaching strategies that lead to meaningful changes in students' perceptions and practices. Future research could build on these findings by exploring the long-term impact of such interventions on students' writing skills and examining their applicability in other educational contexts. By continuing to refine and apply variation theory-based pedagogies, educators can play a pivotal role in fostering deeper understanding and improved outcomes for students across disciplines.



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Conflict of Interest

The authors have no conflicts of interest to declare.

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Authors' Contribution

The authors confirm contribution to the paper as follows; study conception, design and data collection was conducted by SHS. All authors conducted analysis and interpretation of results, draft manuscript preparation, reviewed the results, read and approved the final version of the manuscript.