



The role of language in discipline in improving academic english competence of interdisciplinary students

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ABSTRACT

Language plays a crucial role in academic and professional communication, particularly due to the diverse terminology used across different disciplines. Variations in the meaning of vocabulary in fields such as law, science, economics, and maritime studies often create ambiguity, especially for learners of academic English. This study aims to analyze how the meaning of English vocabulary shifts based on disciplinary context. Employing a qualitative descriptive method, data were collected through literature review and document analysis. The findings reveal that a single English word can hold different meanings depending on the field in which it is used – for instance, the word “sentence” generally refers to a linguistic unit, whereas in legal discourse, it denotes a judicial punishment. These results underscore the significant influence of disciplinary context on vocabulary interpretation and usage. The study highlights the importance of contextual language understanding to improve academic literacy and English proficiency among interdisciplinary students and professionals. Furthermore, the findings contribute to the development of discipline-specific academic English curricula and offer practical guidance for more effective English language teaching and learning.

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INTRODUCTION

Academic disciplines form the fundamental foundation of the academic world (Salam et al., 2019; Schorske & Bender, 2021). The Oxford English Dictionary defines “discipline” as “a branch of learning or scholarly instruction,” meaning a branch of academic study or scholarly instruction. In the context of higher education, academic disciplines encompass the curriculum framework that shapes students' degree programs and defines the academic scope pursued by scholars and researchers (Perna, 2023; Shahjahan et al., 2022). However, as scientific knowledge becomes increasingly complex, interdisciplinary approaches such as multidisciplinary, interdisciplinarity, transdisciplinarity, and cross-disciplinarity have become increasingly relevant. These approaches

enable the integration of perspectives from various disciplines to address issues that cannot be adequately resolved through a single-discipline approach alone (Khan, 2024; Qudisia, 2024; Tarafdar & Davison, 2018).

One of the main challenges in developing interdisciplinary approaches is the differences in language and specific concepts used in each field of study (Ashurova, 2021; MacLeod, 2018). Academic communication between disciplines often faces obstacles due to differences in terminology, syntactic structure, and rhetorical style (Lin & Morrison, 2021; Mauranen et al., 2020). This highlights the importance of understanding language in discipline, which is the study of language used in the context and needs of academic fields (Bunch & Martin, 2021).

Anthony Biglan states that academic disciplines, including language, are part of the knowledge taught and researched in higher education (Biglan, 1971). Language in discipline is a humanistic study that focuses on analyzing the form and use of language in the specific context of a discipline. Thompson et al. (2021) emphasize that academic language includes vocabulary and syntactic structures commonly found in textbooks and exams but not in everyday conversation. Academic language plays a crucial role in the acquisition and application of knowledge by students, particularly in an English-language environment (Bunch & Martin, 2021; Fedorenko, 2018; Scharp & Thomas, 2019).

In line with this, the Strategic Education Research Partnership emphasizes the importance of mastering academic vocabulary and language structures so that students can understand and actively participate in discussions, lectures, and reading academic sources. Language in an academic context is not only a means of communication but also a tool for thinking and understanding complex concepts in a particular field of study (Cook-Sather, 2018; Liu et al., 2024; Pamzan et al., 2023).

Therefore, research on language in disciplines is significant, particularly in the context of law, science, economics, and maritime studies. These four fields have specific academic language characteristics that continue to evolve with the advancement of science and the globalization of higher education. This research aims to analyze the characteristics and use of language in these disciplines to strengthen mastery of academic English, both spoken and written. Thus, it is hoped that this study will contribute to the development of interdisciplinary academic literacy and support efforts to improve the quality of higher education in Indonesia in facing global challenges.

Despite the growing recognition of disciplinary language variation, existing studies tend to focus either on general academic English or on single-discipline analyses, leaving a gap in comparative, interdisciplinary research that examines how specific vocabulary shifts meaning across diverse academic fields. This study addresses that gap by exploring the contextual meanings of English vocabulary in the disciplines of law, science, economics, and maritime studies – fields that are highly relevant to both national development and global academic discourse. By identifying these variations, the study provides practical insights for the design of discipline-based academic English curricula and informs university-level language learning policies. These contributions are particularly valuable for improving students' academic literacy, enhancing interdisciplinary collaboration, and supporting the internationalization of higher education in Indonesia.

RESEARCH METHODOLOGY

This study uses a qualitative descriptive approach. This approach was chosen because it provides an in-depth and comprehensive description of the phenomenon being studied, particularly in relation to the process of language modernization in the linguistic context of Indonesia. According to Firdaus et al. (2021), the qualitative descriptive method is used to describe the conditions and situations of a phenomenon in detail and factually, without manipulating the variables being studied.

This study focuses on the collection and analysis of qualitative data, which is then described systematically to gain a complete understanding of the dynamics of the use and development of the Indonesian language within the framework of modernization. As stated by Fasold, this approach is

relevant for exploring linguistic processes that occur in society, particularly in the context of language change and adaptation to the development of the times.

Data in this study were obtained through literature review and documentation, including scholarly books, peer-reviewed journal articles, linguistic reports, and other credible sources relevant to the research topic. The selection criteria for data sources emphasized relevance to the study's focus on language modernization, publication credibility (favoring peer-reviewed and well-cited works), and recency to capture current linguistic trends. Non-scholarly or outdated materials were excluded to ensure data quality and reliability.

Data validation was strengthened through source triangulation by comparing information across multiple independent sources to verify consistency and accuracy. In addition, the credibility of the literature was assessed by examining the authors' expertise, the rigor of the publication process, and the contextual appropriateness of the data. To further enhance validity, the research included reflexive practices, where the researchers critically reflected on their own assumptions and potential biases throughout the analysis.

The role of the researchers was active and interpretative, involving careful reading, coding, and thematic categorization of data. Researchers maintained reflexivity by documenting analytic decisions and engaging in iterative reviews to ensure the accuracy and depth of interpretation. This process allowed the findings to be grounded in the data while acknowledging the researchers' influence in meaning construction.

Data analysis followed the qualitative data analysis framework by Miles and Huberman (1994), involving data reduction, data display, and inductive conclusion drawing. With this approach, the research is expected to produce an objective, systematic, and scientifically accountable description of the process of modernization of the Indonesian language, as well as contribute to the development of linguistic studies in both academic and practical fields.

RESULTS AND DISCUSSIONS

Having done the research in some fields such as: Economic, Law, Accountancy and Maritim, the writers got some words that use in that field. In this research the writer got the data of some words. We can see the example in this below.

Table 1. Terms in the fields of Economics, Law, Accounting, and Maritime

No	Word (Standar)	Meaning	Other meaning	Field Study
1	Balance	Seimbang (n)	Saldo (n)	Accountancy
2	Capital	ibukota (n)	Modal (n)	Accountancy
3	Maturity	Kedewasaan (n)	Jatuh tempo (n)	Accountancy
4	Draft	naskah, rangka (n)	Wesel/a money order (n)	Accountancy
5	Charged	Menghidupkan (v)	Didakwakan (v)	Law
6	Article	Makalah (v)	Pasal (n)	Law
7	Right	Benar (adj)	Hak (n)	Law
8	Fine	baik, bagus (adj)	Denda (n)	Law
9	Corpus	bag.pokok, badan (n)	Kitabhukum (n)	Law
10	Trial	Test, ujian (n)	Pengadilan (n)	Law
11	Seal	Anjinglaut (n)	menyegel/tutup (v)	Law
12	Chemistry	Kecocokan (n)	Kimia (n)	Science
13	Lead	yang memimpin (n)	Timahhitam (n)	Science
14	Iron	Setrika (n)	besi/zatbesi (n)	Science
15	Breast	Payudara	Garispemasanganjangkar	Maritim
16	Anchors	Pembawaberita	Jangkar	Maritim
17	Bone	Tulang or duri	Busapada baling-baling kapal	Maritim
18	Bound	Terikat	Proses menjutempatspesifik	Maritim

19	Brig	Penjara	Kapal 2 buahtiang	Maritim
20	Craft	Kerajinan	Kapaldenganberbagaiukuran	Maritim

We can see another example in this below!

Words	General	Maritime
Breast	Either of the two soft, protruding organs on the upper front of a woman's body that secrete milk after pregnancy.	The line to install anchors or less perpendicular to the bow and stern of the ship.
Anchors	The people act as an anchor news informant for (a television program or sporting event/ broadcasting and athletic).	A heavy object attached to a rope or chain and used to moor a vessel to the sea bottom, typically one having a metal shank with a ring at one end for the rope and a pair of curved and/or barbed flukes at the other.
Bone	Spine / thorn, or parts of plants or animal body pointed and sharp	Foam contained in ship propellers in motion that is rarely known or considered
Bound	A leaping movement upward or tightly	Process towards a particular purpose or specific place
Brig	The building confine convict	A two-masted, square-rigged ship with an additional gaff sail on the mainmast.
Craft	An activity involving skill in making things by hand.	Ship or multiple ships with various types and sizes
Crimp	Have a limiting or adverse effect on (something).	Someone who lure sailors from his ship and the sailor robbed, or forcing the sailors to leave / move the shi
fast	Moving or capable of moving at high speed.	Ropes to moor the ship; designation to the ship while moored
Founder	A person who manufactures articles of cast metal; the owner or operator of a foundry.	Filled with water and sink
Idler	A habitually lazy Member person	Crew who worked the whole day but not to stand guard at night, for example, carpenters and sailmakers
Sheet	a rectangular piece of paper, especially one of a standard size produced commercially and used for writing and printing on.	Ropes used to adjust or control the screen on a sailing ship in operation
Slob	A lazy and slovenly person.	Denomination of ice in the bay, or on the outskirts of large ice floes
Snub	An act of showing disdain or a lack of cordiality by rebuffing or ignoring someone or something.	Stopping rope or cable is being held out suddenly.
Spooning	Con vey (food) somewhere by using a spoon.	Drove straight against the wind and the sea
Ticket	Apiece of paper or small card that gives the holder a certain right, especially to enter a place, travel by public transport, or participate in an event.	Colloquial language to refer to the certificate of competence. Generally regarded as a disparaging name, but with the proper pronunciation will show well this term
Winding	Following a twisting or spiral course	Play the ship from end to end between a buoy or along the quayside

After the data has been analyzed, we found that many of word has different meaning if the words is used in any field, like from the words "sentence" in general meaning a group word consist of subject and predicat. But in law meaning is "hukuman and another example "charge" in general meaning or KBBI, the word has meaning "menghidupkan", but in law filed the word became another meaning " didakwakan" . And in the sentence we can see clearly about the different the meaning.

“I give you sentence”

Sentence = give the punishment

“The teacher arranged the good sentence in white board”

Sentence = a group of word that has subject, predicat and object.

Another example:

“I charge my phone”

Charge = turn on the phone

“ The criminal man charged dead finalty”

Charge = give the punishment to the criminal.

Basically in one word has another meaning depend on the context, situation and field. One field has a standardization which has their own standardization. And the reasons why standardization must be exist, it because there are some words didn't have equivalence meaning and to make new vocabulary need to require a long process and a long time, and the recognition of areas of the field itself. The language has its own role, so the use of language depends also on the user language.

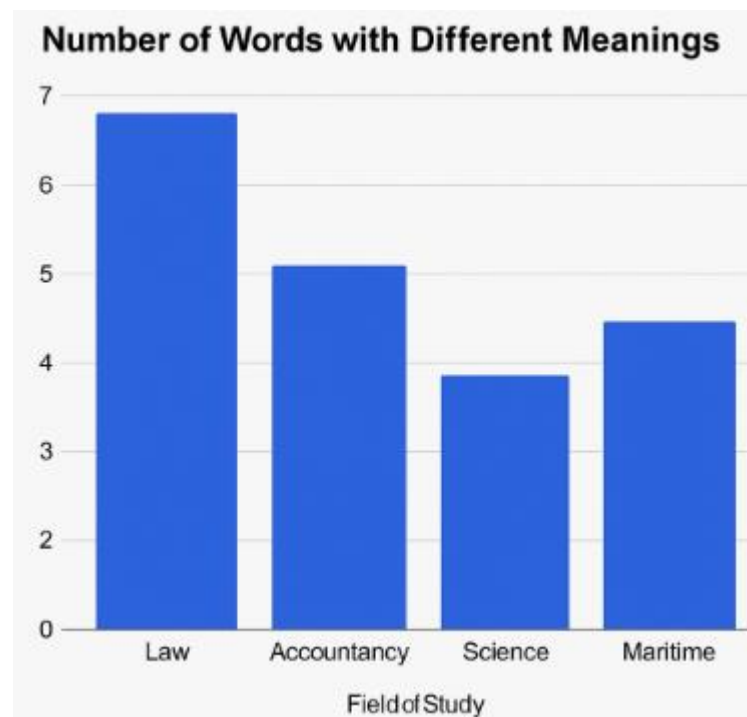


Figure 1. Graph visualizing the concentration of meaning variations based on field of study

The Figure above shows the number of words with multiple meanings in several different fields of study. The field of law has the most words with multiple meanings, namely 7 words, followed by the maritime field with 6 words. The field of accounting has 4 words with multiple meanings, while the field of science has the fewest, namely 3 words. This data indicates that variations in word meanings are more commonly found in legal and maritime contexts compared to accounting and science.

Discussion

Research shows that many English words undergo a shift in meaning when used in the context of specific disciplines. These differences in meaning are not only semantic, but also reflect the unique terminology used in each field of study, such as law, accounting, economics, science, and

maritime studies. For example, the word “sentence” in a general context refers to a group of words with a subject and predicate, but in a legal context, it refers to a “punishment.” Similarly, the word ‘charge’ in everyday use means “to charge” or “to power on,” but in a legal context, it means “to be charged.” These differences highlight that the meaning of a word is highly dependent on its context of use and the academic field it originates from.

This phenomenon indicates the importance of language standardization in each field of study to avoid ambiguity and ensure effective communication between professions. Each discipline has technical terms that may not have exact equivalents in everyday language, requiring a lengthy process of term formation and recognition. Therefore, understanding “language in discipline” is essential for students, academics, and professionals, especially in the context of using English for academic purposes. By understanding the meaning of words within their respective fields, language users will be able to use and interpret terms accurately, both in written and spoken form, thereby enhancing interdisciplinary academic literacy and fostering effective scientific communication.

CONCLUSION

Language is the primary tool for communication, used not only in everyday life but also playing a crucial role in academic and professional settings. Each academic discipline has its own unique vocabulary or terminology, which can vary in meaning depending on the context in which it is used. Therefore, analyzing language in disciplines is important to understand shifts in meaning and specific interpretations in fields such as law, science, economics, and maritime studies. The results of this study indicate that understanding the variations in meaning of vocabulary within disciplinary contexts can enhance proficiency in academic English, both spoken and written. Additionally, this study contributes to the development of interdisciplinary academic literacy and supports the effectiveness of scientific communication. Thus, research on language in disciplines is not only relevant in a linguistic context but also impacts the improvement of English language proficiency for students and practitioners across various fields of study. This conclusion aligns with the research objective, which was to identify and analyze vocabulary with multiple meanings across academic disciplines, thereby revealing how context influences interpretation. However, the study is limited in scope, focusing only on a small number of fields and vocabulary samples. Future research should expand the number of disciplines and consider a broader range of linguistic features, including phrase structures or genre-specific discourse. Such efforts would offer deeper insights into disciplinary literacy and support more comprehensive strategies in academic English instruction.

References

- Ashurova, D. U. (2021). Interdisciplinary approach to language. *Nizhnevartovsk Philological Bulletin*, 6(2), 127–137.
- Biglan, A. (1971). *The Relationship of University Department Organization to the Characteristics of Academic Tasks*. University of Illinois at Urbana-Champaign.
- Bunch, G. C., & Martin, D. (2021). From “academic language” to the “language of ideas”: A disciplinary perspective on using language in K-12 settings. *Language and Education*, 35(6), 539–556.
- Cook-Sather, A. (2018). Listening to equity-seeking perspectives: How students’ experiences of pedagogical partnership can inform wider discussions of student success. *Higher Education Research & Development*, 37(5), 923–936.
- Fedorenko, S. (2018). *Humanistic foundations of foreign language education: theory and practice*.
- Firdaus, F., Zulfadilla, Z., & Caniango, F. (2021). Research methodology: Types in the new perspective. *Manazhim*, 3(1), 1–16.
- Khan, A. (2024). Integrating perspectives: The role of multidisciplinary approaches in solving complex problem. *Kashf Journal of Multidisciplinary Research*, 1(08), 400–410.
- Lin, L. H. F., & Morrison, B. (2021). Challenges in academic writing: Perspectives of Engineering faculty and L2 postgraduate research students. *English for Specific Purposes*, 63, 59–70.

- Liu, X., Gu, M. M., & Jin, T. (2024). Strategy use in collaborative academic reading: Understanding how undergraduate students co-construct comprehension of academic texts. *Language Teaching Research*, 28(4), 1391-1411.
- MacLeod, M. (2018). What makes interdisciplinarity difficult? Some consequences of domain specificity in interdisciplinary practice. *Synthese*, 195(2), 697-720.
- Mauranen, A., Pérez-Llantada, C., & Swales, J. M. (2020). Academic Englishes: A standardised knowledge? In *The Routledge handbook of world Englishes* (pp. 659-676). Routledge.
- Pamzan, M., Javaid, Z. K., & Ali, A. A. (2023). Perception of students about collaborative strategies employed by teachers for enhancing English vocabulary and learning motivation. *Pakistan JL Analysis & Wisdom*, 2, 146.
- Perna, L. W. (2023). *Higher Education: Handbook of Theory and Research: Volume 38*.
- Qudsia, B. (2024). Complex challenges and multidisciplinary solutions: A strategic approach. *Research Journal*, 2(1), 26-39.
- Salam, M., Awang Iskandar, D. N., Ibrahim, D. H. A., & Farooq, M. S. (2019). Service learning in higher education: A systematic literature review. *Asia Pacific Education Review*, 20(4), 573-593.
- Scharp, K. M., & Thomas, L. J. (2019). Disrupting the humanities and social science binary: Framing communication studies as a transformative discipline. *Review of Communication*.
- Schorske, C. E., & Bender, T. (2021). *American academic culture in transformation: Fifty years, four disciplines*.
- Shahjahan, R. A., Estera, A. L., Surla, K. L., & Edwards, K. T. (2022). "Decolonizing" curriculum and pedagogy: A comparative review across disciplines and global higher education contexts. *Review of Educational Research*, 92(1), 73-113.
- Tarafdar, M., & Davison, R. M. (2018). Research in information systems: Intra-disciplinary and inter-disciplinary approaches. *Journal of the Association for Information Systems*, 19(6), 523-551.
- Thompson, G. A., & Watkins, K. (2021). Academic language: Is this really (functionally) necessary? *Language and Education*, 35(6), 557-573.