Rhetorical Structures of Conclusion Sections in Arabic Scholarly Articles for Indonesian and Arabic Speakers

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Abstract

This study investigates the rhetorical structures of conclusion sections in Arabic research articles written by Arab native speakers and Indonesian scholars. Using Yang and Allison's (2003) move-step framework and a directed content analysis approach, the study examined a balanced corpus of 80 articles from linguistics and education journals. The findings reveal that Move 2 (summary of results and evaluation) is obligatory, appearing in all texts, while Move 1 (introduction) and Move 3 (implications and recommendations) are conventional but vary in frequency. Arab authors tended to emphasize Move 3, highlighting implications and prospective contributions, whereas Indonesian authors relied more on Move 1 and Move 2, stressing restatement and summary. Linguistics articles favored Move 2, while education articles highlighted Move 3. The analysis of tense and diathesis further indicates that Arab writers used *māḍī* (past) to stress finality and *majhūl* (passive) for impersonal reporting, while Indonesian writers favored *muḍāriʿ* (present/future) and *maʿlūm* (active) for generalization and clarity. Theoretically, the study confirms the adaptability of the genre-based move-step framework across languages and disciplines. Practically, it offers pedagogical insights for teaching Arabic academic writing, emphasizing discipline-sensitive genre awareness and rhetorical flexibility.

Keywords: *rhetorical structure, academic writing, conclusion section, Arabic research articles, move-step analysis, cross-cultural rhetoric*

Abstrak

Penelitian ini menganalisis struktur retoris bagian kesimpulan pada artikel ilmiah berbahasa Arab yang ditulis oleh penutur asli Arab dan penulis Indonesia. Dengan menggunakan kerangka move-step Yang dan Allison (2003) serta pendekatan directed content analysis, penelitian ini menelaah korpus seimbang berjumlah 80 artikel dari bidang linguistik dan pendidikan. Hasil penelitian menunjukkan bahwa Move 2 (ringkasan hasil dan evaluasi) bersifat wajib dan muncul pada seluruh teks, sedangkan Move 1 (pembukaan) dan Move 3 (implikasi dan rekomendasi) bersifat konvensional dengan variasi frekuensi. Penulis Arab lebih menekankan Move 3 dengan menyoroti implikasi dan kontribusi prospektif, sedangkan penulis Indonesia lebih banyak memanfaatkan Move 1 dan 2 untuk menegaskan kembali isi dan ringkasan hasil. Artikel linguistik lebih dominan menggunakan Move 2, sementara artikel pendidikan lebih menonjolkan Move 3. Analisis kala (tense) dan diatesis juga menunjukkan perbedaan: penulis Arab cenderung menggunakan māḍī (lampau) untuk menegaskan finalitas dan majhūl (pasif) untuk gaya impersonal, sedangkan penulis Indonesia lebih sering memakai muḍāriʿ (kini/akan) dan maʿlūm (aktif) untuk generalisasi dan kejelasan. Secara teoretis, penelitian ini menegaskan relevansi sekaligus adaptabilitas kerangka move-step lintas bahasa dan disiplin. Secara praktis, temuan ini memberi masukan bagi pedagogi penulisan akademik Arab, khususnya pentingnya kesadaran genre yang sensitif disiplin serta fleksibilitas retoris.

Kata Kunci: *struktur retoris, penulisan akademik, bagian kesimpulan, artikel ilmiah Arab, analisis move-step, retorika lintas budaya*

Introduction

A scientific article is a form of academic genre that possesses a particular rhetorical structure widely recognized within the academic community.[1] This rhetorical structure plays a crucial role in effectively communicating research findings while simultaneously fulfilling the author's communicative purposes toward the readers. One section that is often perceived as simple, yet inherently complex, is the conclusion. Beyond serving merely as a summary of the study's results, the conclusion also functions as a space for authors to reaffirm the contribution of their research, as well as to provide recommendations or

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[1] Indrian, R. D., & Ardi, P. (2019). Rhetorical Structures of English-Major Undergraduate Thesis Introduction Chapters. *Indonesian Journal of EFL and Linguistics*, *4*(2), 195. https://doi.org/10.21462/ijefl.v4i2.166

directions for future investigations.[2] Accordingly, analyzing the rhetorical structure of the conclusion is essential to better understand academic writing practices across cultures.

Studies on rhetorical structures in research articles have been extensively conducted, particularly within the framework of genre analysis. Tocalo (2020), for instance, investigated rhetorical moves and verbs in research article abstracts across different varieties of English.[3] The findings revealed that although common structural patterns exist, writers from diverse linguistic backgrounds demonstrated distinct rhetorical preferences, thereby highlighting the influence of linguistic and cultural backgrounds in shaping academic texts. Similarly, Abdolmalaki et al. (2019) compared the rhetorical structure of introductions in traditional dissertations and article-based dissertations. Their study indicated significant differences in the use of certain rhetorical moves, thus underscoring the flexibility of academic conventions in adapting to format demands.[4]

Research within the Indonesian context has also made important contributions. Wijaya and Bram (2021) discovered that the introductions of articles published in SINTA 1 journals generally adhered to Swales's CARS framework, although not all writers followed the rhetorical sequence consistently.[5] Likewise, Luthfianda, Kurniawan, and Gunawan (2022) demonstrated notable differences between soft science and hard science articles in terms of rhetorical moves and linguistic features, particularly concerning metadiscoursal units. These findings suggest that disciplinary background also shapes the rhetorical patterns preferred by

[2] Rustipa, K., Purwanto, S., & Rozi, F. (2023). Rhetorical structures, strategies, and linguistic features of problem statement to promote a teaching writing model. *Studies in English Language and Education*, *10*(2), 575–597. https://doi.org/10.24815/siele.v10i2.30855

[3] Tocalo, A. W. I. (2021). MOVE STRUCTURES AND THEIR RHETORICAL VERBS OF RESEARCH ARTICLE ABSTRACTS ACROSS ENGLISHES. *Indonesian Journal of Applied Linguistics*, *11*(1). https://doi.org/10.17509/ijal.v11i1.34593

[44] Abdolmalaki, S. G., Tan, H., Abdullah, A. N., Sharmini, S., & Geok Imm, L. (2019). Introduction Chapter of Traditional and Article-based Theses: A Comparison of Rhetorical Structures and Linguistic Realisations. *GEMA Online® Journal of Language Studies*, *19*(1), 116–135. https://doi.org/10.17576/gema-2019-1901-07

[5] Wijaya, L., & Bram, B. (2022). Rhetorical Structures of Introduction Sections in Sinta-Indexed Journals. *Jurnal Onoma: Pendidikan, Bahasa, Dan Sastra*, *8*(1), 181–188. https://doi.org/10.30605/onoma.v8i1.1659

writers.[6] Meanwhile, Al-Shujairi (2019) examined the discussion sections of research articles and identified the emergence of new rhetorical steps such as implications and research limitations, reflecting the dynamic nature of rhetorical structures as they adapt to evolving global academic conventions.[7]

Although the aforementioned studies have emphasized the importance of rhetorical analysis across various sections of research articles, the conclusion section, particularly in Arabic-language articles, has received relatively little attention. Most existing studies have concentrated on abstracts, introductions, or discussions, while conclusions are often treated merely as summaries without in-depth examination. Furthermore, research that specifically compares rhetorical strategies employed by Arab and Indonesian writers remains scarce. Given that differences in first-language background and academic traditions are likely to shape how writers construct arguments in conclusions,[8] there is a pressing need to explore the rhetorical patterns of conclusion sections in Arabic research articles, while simultaneously comparing them with contributions by Indonesian writers.

Addressing this gap is significant not only for advancing the study of academic rhetoric but also for pedagogical practices in the teaching of academic Arabic. Insights into the rhetorical patterns employed by Arab and Indonesian authors may assist curriculum designers and instructors in preparing students to write research articles in accordance with international conventions. Moreover, the findings of this study may enrich the literature on cross-cultural scientific communication by illustrating how linguistic and cultural factors influence the ways in which writers craft conclusions. Thus, the present research holds both theoretical and practical relevance

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[6] Luthfianda, S. N., Kurniawan, E., & Gunawan, W. (2021). Rhetorical Structures of Introductions in Soft and Hard Science International Journals Written by Indonesian Scholars. *Journal of English Language Teaching and Linguistics*, *6*(2), 343. https://doi.org/10.21462/jeltl.v6i2.563

[7] Al-Shujairi, Y. B. (2021). Review of the Discussion Section of Research Articles: Rhetorical Structure and Move. *LSP International Journal*, *8*(2), 9–25. https://doi.org/10.11113/lspi.v8.17099

[8] Li, X. (2020). Mediating cross-cultural differences in research article rhetorical moves in academic translation: A pilot corpus-based study of abstracts. *Lingua*, *238*, 102795. https://doi.org/10.1016/j.lingua.2020.102795

Based on the above background, this study aims to analyze the rhetorical structure of the conclusion sections in Arabic-language research articles written by native Arab and native Indonesian authors. The analysis adopts Yang and Allison's model, which categorizes conclusions into three major rhetorical moves.[9] The research questions are as follows: (1) What is the distribution of Moves 1, 2, and 3 in articles written by Arab and Indonesian authors? (2) What are the similarities and differences in rhetorical strategies employed by both groups of writers? This study is expected to contribute to the development of cross-cultural academic rhetoric theory and provide practical implications for the teaching of academic writing in Arabic.

Method

This study employed a directed content analysis approach as proposed by Hsieh and Shannon.[10] This approach is rooted in qualitative methodology but is reinforced by a simple quantification technique, namely frequency counts, to illustrate the tendencies of emerging patterns. The selection of this method was based on the study's objective, which is to identify and compare the rhetorical structures of conclusion sections in research articles. Given the existence of a well-established theoretical framework by Yang and Allison (2003), directed content analysis was deemed appropriate, as it enables the researcher to examine texts within predetermined categories.

The data of this study consisted of a corpus of 80 Arabic-language research articles. These articles were purposively selected based on several criteria: (1) published within the last five years, (2) written in Arabic, (3) belonging to the fields of linguistics and education, and (4) available in reputable journals. Of these, 40 articles were written by Arab authors and published in journals indexed by the Arab Impact Factor (AIF), while the remaining 40 were authored by Indonesian writers and published in journals accredited by the Directorate General of Higher Education (DIKTI). This proportion was chosen to ensure

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[9] Ruiying Yang and Desmond Allison, *Research Article Writing: A Move-Based Genre Analysis of Discussion Sections in Applied Linguistics*, in *Academic Discourse*, ed. John Flowerdew (London: Pearson Education, 2003), 3–22.

[10] Hsiu-Fang Hsieh and Sarah E. Shannon, "Three Approaches to Qualitative Content Analysis," Qualitative Health Research 15, no. 9 (November 2005): 1277–1288, https://doi.org/10.1177/1049732305276687.

balanced representation between the two groups of authors, thereby allowing meaningful cross-cultural comparison.

The analysis was conducted using the rhetorical framework developed by Yang and Allison (2003). This model categorizes conclusions into three main rhetorical moves. Move 1 serves as the opening of the conclusion, usually in the form of a brief introduction or a restatement of the research focus. Move 2 presents results and evaluation, including summaries of findings, authorial comments, and critical assessments of the research outcomes. Move 3 centers on implications and recommendations, which may take the form of practical suggestions, theoretical contributions, or directions for future studies. Each move comprises more specific steps. For instance, Move 2 includes Step 2.1 (summarizing results), Step 2.2 (commentary), and Step 2.3 (evaluation). The definitions and functions of each move and step are explained in detail to ensure that readers unfamiliar with the framework can clearly understand the basis of the analysis.[11]

Data collection was carried out by downloading articles from journal portals that met the specified criteria. Subsequently, the conclusion sections were extracted from each article for focused analysis. The analysis was conducted through manual coding based on the categories defined in Yang and Allison's (2003) framework. Each occurrence of moves and steps was systematically recorded, and their frequencies were calculated to examine the distribution tendencies of rhetorical patterns between Arab and Indonesian writers.

To ensure the validity and reliability of the analysis, the coding process was independently performed by two researchers. The coding results were then compared to measure consistency and inter-coder agreement. In cases of interpretive discrepancies, discussions were held until consensus was reached. Furthermore, the validity of the study was strengthened through peer debriefing with experts in academic writing and triangulation with findings from previous research. These efforts were undertaken to ensure that the results of the analysis are methodologically sound and academically accountable.

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[11] Ruiying Yang and Desmond Allison, *Research Article Writing: A Move-Based Genre Analysis.*

Results and Discussion

The analysis of the rhetorical structure in the conclusion sections of research articles revealed the presence of three main moves, namely Move 1 (opening), Move 2 (presentation of results and evaluation), and Move 3 (implications and recommendations). Their distribution varied, as summarized in Table 1 below. The data show that Move 2 was the most dominant component, with a frequency of 153 occurrences (41.0%), followed by Move 3 with 143 occurrences (38.3%), while Move 1 appeared only 77 times (20.6%). This pattern indicates that authors tended to use the conclusion primarily to reinforce their findings and their implications, whereas the opening section was generally more concise.

Table 1. Distribution of Moves in Article Conclusions (N = 373)

Move	Rhetorical Function	Frequency	Percentage
Move 1	Opening of the conclusion	77	20.6%
Move 2	Summary of results & evaluation	153	41.0%
Move 3	Implications & recommendations	143	38.3%
Total		**373**	**100%**

Furthermore, each move consisted of several steps with varying frequencies. Move 1 included only one step, Step 1.1, which occurred 77 times (20.6%). Move 2 was divided into three steps, with Step 2.1 being the most dominant (27.1%) and found in all texts, while Step 2.2 (6.4%) and Step 2.3 (7.5%) were relatively less frequent. Move 3 included Step 3.1 (14.7%) and Step 3.2 (23.6%), with a stronger tendency toward Step 3.2. These variations demonstrate that while rhetorical patterns appear systematic, their application remains flexible depending on the authors' communicative purposes.

The research data further support these findings. In Move 1, authors typically opened the conclusion with general statements, for example: (The ''شرح الخطيب في علوم شتى منذ صغره دليل على سعة اطلاعه'' preacher's engagement with various sciences since his youth indicates his broad erudition), which emphasized an academic context. In Move 2, the focus shifted to analytical results, as in '' يدل على أن المتكلم عمد إلى (This indicates that the speaker deliberately employed المبالغة...'' exaggeration…), highlighting evaluation. Move 3, by contrast, was directed toward reflection or implications, such as '' يدعو المرء إلى التفكير في

الصفة أو الصفات المشتركة..." (This invites one to reflect on the shared characteristics…), which guided readers toward broader interpretations.

When examined based on authors' backgrounds, differences in distribution also emerged. As presented in Table 2, Arab authors placed greater emphasis on Move 3 (48.4%) as a means of conveying research implications, while Move 2 (39.1%) and Move 1 (12.5%) were less prominent. Conversely, Indonesian authors emphasized Move 2 (43.1%) and Move 1 (29.3%), with Move 3 comparatively lower (27.6%). This suggests that Arab authors were more prospective, stressing contributions and recommendations, whereas Indonesian authors were more retrospective, reinforcing the content of the study.

Table 2. Distribution of Moves by Author Background

Author Background	Move 1	Move 2	Move 3	Total
Arab (N = 192)	12.5%	39.1%	48.4%	100%
Indonesia (N = 181)	29.3%	43.1%	27.6%	100%

Overall, Move 2 was present in all texts (100%), Move 3 in 94%, and Move 1 in 78%. These findings reinforce Yang and Allison's view that academic rhetorical structures are both systematic and flexible. Thus, while structural patterns show uniformity, differences in move distribution across author groups reflect rhetorical variation influenced by academic culture and scientific communication strategies.

An analysis of rhetorical structures across disciplines also revealed distinct patterns between Linguistics and Education articles. In Linguistics articles, Move 2 (content development) was the most dominant (45.1%), followed by Move 3 (conclusion/implications) at 28.7%, and Move 1 (opening) at 26.2%. In contrast, in Education articles, Move 3 was the most prevalent (45.9%), indicating a stronger emphasis on drawing conclusions and making recommendations. The detailed distribution is presented in Table 3.

Table 3. Distribution of Moves and Steps by Discipline

Discipline	Move	F	%	Step	F	%
Linguistics	1	43	26.2	1.1	43	26.2
	2	74	45.1	2.1	41	25.0
				2.2	15	9.1
				2.3	18	11.0
	3	47	28.7	3.1	16	9.8
				3.2	31	18.9
Education	1	34	16.3	1.1	34	16.3
	2	79	37.8	2.1	60	28.7

			2.2	9	4.3
			2.3	10	4.8
3	96	45.9	3.1	39	18.7
			3.2	57	27.3
Total	164	100%		164	100%
	209	100%		209	100%

Differences were also evident in the use of steps. In Linguistics articles, Step 2.1 (presentation of results) was more prominent (25%), whereas in Education articles, Step 3.2 (implications/recommendations) was more frequent (27.3%). This indicates that Linguistics authors focused more on elaborating findings, while Education authors placed greater emphasis on the practical implications of their research.

Examples from the corpus further illustrate these tendencies. In Linguistics articles, Move 2 was expressed through statements such as "تفضل الشاعر للقرية على المدينة.." (The poet's preference for the village over the city…), emphasizing content and analysis. In Education articles, Move 3 was exemplified by sentences like " حيث الوسيلة البطاقة تسهل الطالبات.." (Where the use of flashcards facilitates female students…), pointing toward practical recommendations. Thus, it can be concluded that rhetorical emphases differ across disciplines, with Linguistics focusing on content-based argumentation, while Education emphasizes conclusions and follow-up actions.

The classification of moves and steps in the conclusion sections further showed that Move 2, summarizing the research findings, was obligatory as it appeared in all articles (100%). Step 2.1, which presents the main findings, was also present in all articles, underscoring that the presentation of results constitutes the core element of conclusions.

By contrast, Move 1 (opening) appeared in 78% of the articles and was classified as conventional (common but not mandatory). Step 1.1 followed the same pattern. Move 3 (implications/recommendations) was present in 94% of articles and was also considered conventional. However, within Move 3, variation was observed: Step 3.2 (generalization of results) was more frequent (86%) than Step 3.1 (practical suggestions), which appeared in only 44% of the articles. This indicates that while research implications were commonly presented, the ways in which they were expressed were more flexible and depended on the individual academic writing styles of the authors.

Table 4. Categorization of Moves and Steps in Article Conclusions

Element	Occurrence Percentage	Status
Move 1 & Step 1.1	78%	Conventional
Move 2 & Step 2.1	100%	Obligatory
Step 2.2	30%	Optional
Step 2.3	34%	Optional
Move 3	94%	Conventional
Step 3.1	44%	Optional
Step 3.2	86%	Conventional

These findings reveal that article writers are essentially unable to avoid presenting a summary of results (Move 2 and Step 2.1), but they have greater flexibility in including introductory remarks (Move 1) or recommendations (Move 3). This pattern is consistent with Bunton's study, which asserts that presenting findings is an obligatory element, whereas recommendations and implications are more conventional or optional, depending on the rhetorical goals of the writer.

After identifying the categories of moves and steps, the analysis was then directed toward linguistic aspects, particularly the use of tense (madhi and mudhāriʿ) and diathesis (maʿlūm and majhūl). The results indicate a diverse distribution pattern for each move.

In Move 1, particularly Step 1, Indonesian writers predominantly use the madhi form (41.8%) compared to Arab writers (18.4%). This suggests a tendency among Indonesian writers to present conclusions by emphasizing completed results. Conversely, Arab writers employ the mudhāriʿ form more frequently (16.9%) to guide readers toward the continuation of information.

In Move 2, both Arab and Indonesian writers demonstrate a balance between madhi and mudhāriʿ, although with different proportions. Arab writers recorded 51.0% madhi and 38.6% mudhāriʿ, whereas Indonesian writers showed a slightly higher use of mudhāriʿ (45.5%) compared to madhi (44.8%). This pattern highlights that summaries of results are more often expressed through forms indicating generalization or prospective orientation.

Meanwhile, in Move 3, which contains implications and recommendations, Arab writers continued to favor madhi (30.6%) to underscore the finality of the results. In contrast, Indonesian writers emphasized mudhāriʿ (29.8%), indicating an orientation toward future research or prospects.

Table 6. Distribution of Tense by Writers' Linguistic Background

Move	Arab Dominant Tense	General Pattern	Indonesia Dominant Tense	General Pattern
Move 1 (Introduction)	Mudhāriʿ (16.9%)	Less madhi, focus on initial presentation	Madhi (41.8%)	More madhi to report results
Move 2 (Summary of Results)	Madhi (51.0%) vs Mudhāriʿ (38.6%)	Both significant, madhi slightly higher	Mudhāriʿ (45.5%)	More prominent for generalizing findings
Move 3 (Implications & Recommendations)	Madhi (30.6%)	Emphasis on finality	Mudhāriʿ (29.8%)	Emphasis on prospect & continuity

The table above illustrates that Arab writers emphasize madhi in the concluding section to reinforce the finality of findings, while Indonesian writers tend to use mudhāriʿ to leave room for development and continuity of research. These findings strengthen the view that linguistic choices are not only related to rhetorical functions but are also influenced by the academic cultural background of the writers.

In addition to tense, the analysis also uncovered variations in the use of diathesis (maʿlūm and majhūl) in the conclusion sections of research articles. The distribution results reveal that both groups of writers, Arab and Indonesian, generally favored maʿlūm forms, though with differing tendencies across moves.

In Move 1, Indonesian writers more frequently employed maʿlūm (26.5%) compared to Arab writers (18.6%), while Indonesians also showed a higher proportion of majhūl (33.3%). This suggests that in the opening part of the conclusion, Indonesian writers tend to present results in an impersonal style to maintain objectivity.

Move 2, however, Arab writers exhibited a higher proportion of majhūl (64.3%) compared to Indonesians (36.4%). This indicates that Arab writers more often opted for passive constructions when presenting summaries of results, seemingly emphasizing that the findings "speak for themselves" without overly highlighting the role of the author.

Meanwhile, in Move 3, both Arab and Indonesian writers reduced their use of majhūl and relied more heavily on maʿlūm. This

aligns with the rhetorical function of Move 3, which emphasizes implications and recommendations, and is more effectively conveyed in active structures.

Table 7. Distribution of Diathesis by Writers' Linguistic Background

Move	Arab – Dominant Diathesis	General Pattern	Indonesian – Dominant Diathesis	General Pattern
Move 1 (Introduction)	Ma'lūm (18.6%)	Majhūl relatively low (14.3%)	Ma'lūm (26.5%)	Majhūl higher (33.3%) than Arab writers
Move 2 (Summary of Results)	Majhūl (64.3%)	Emphasis on impersonal style	Majhūl (36.4%)	Lower, with ma'lūm still dominant
Move 3 (Implications & Recommendations)	Ma'lūm (41.2%)	Majhūl decreases significantly	Ma'lūm (40.4%)	Majhūl minimal, even zero in Step 3.1

The table above demonstrates that although ma'lūm forms are generally dominant in the conclusions of research articles, rhetorical strategies vary between writers. Arab writers appear more flexible in using majhūl, particularly in summarizing results, while Indonesian writers are more consistent in using ma'lūm to ensure clarity and highlight the author's involvement in delivering implications.

After reviewing the variations in diathesis based on writers' linguistic backgrounds, the analysis next turned to comparisons between the fields of Linguistics and Education. The distribution results revealed significant differences in the use of both tense and diathesis, reflecting distinctive rhetorical styles within each discipline.

Regarding tense, Linguistics texts showed a relatively balanced use of madhi and mudhāriʿ in Move 2 (50.7% vs 44.3%), indicating that writers in this field not only emphasize achieved results but also leave room for generalizing potentially ongoing findings. In contrast, in the field of Education, mudhāriʿ use was higher in Move 3 (41.6%) compared to madhi (25.6%). This pattern reinforces the idea that Education articles place stronger emphasis on the prospective value of

research findings and their potential application in the future, particularly when offering recommendations.

With regard to diathesis, both Linguistics and Education articles continued to show a dominance of ma'lūm, though with differing distributions. In Linguistics articles, ma'lūm appeared 129 times compared to majhūl 19 times, with the former particularly dominant in Move 2 (44.2%). In Education articles, while ma'lūm also dominated (109 occurrences), there was a relatively higher tendency toward majhūl in Move 2 (63.6%). This suggests that Education writers more often opted for passive constructions when presenting summaries of results, possibly to emphasize objectivity and reduce the impression of researcher subjectivity.

Table 8. Distribution of Tense and Diathesis by Discipline

Discipline	Dominant Move	Dominant Tense	Dominant Diathesis	Main Rhetorical Pattern
Linguistics	Move 2 (Summary of Results)	Madhi & Mudhāriʿ relatively balanced	Ma'lūm (44.2%)	Emphasizing balance between final results and generalization of findings
Education	Move 3 (Implications & Recommendations)	Mudhāriʿ (41.6%)	Majhūl relatively high in Move 2 (63.6%)	Emphasizing the prospective value of results and objectivity in presenting summaries

The data presented in the tables indicate that academic writing styles are influenced not only by writers' linguistic backgrounds but also by the rhetorical traditions of their disciplines. Linguistics emphasizes argumentation and a balanced development between results and generalization, whereas Education focuses more on continuity and the practical relevance of research. This aligns with the views of Bunton and Aslam & Mehmood, who assert that cross-disciplinary rhetorical variation constitutes an integral part of the flexibility of scientific communication.

Discussion

The findings of this study reveal that the rhetorical structure of the conclusion sections in Arabic academic articles is systematic yet flexible. The analysis shows that while all articles consistently include a summary of research results (Move 2), the presence of an introduction (Move 1) as well as recommendations or implications (Move 3) varies depending on the linguistic background and disciplinary field of the authors. This finding affirms that rhetorical choices in academic writing are not guided solely by universal conventions, but are also influenced by cultural norms and disciplinary traditions.

When compared across linguistic backgrounds, a clear distinction emerges between native and non-native authors. Native authors tend to place greater emphasis on implications and recommendations (Move 3), while non-native authors rely more heavily on introductions and summaries of findings (Moves 1 and 2). This pattern aligns with Gao and Pramoolsook (2023), who argue that cultural background influences rhetorical preferences in academic texts.[12] However, the results of this study diverge from Wannaruk and Amnuai (2013), who found a relatively low frequency of Move 2 among native authors. This discrepancy suggests that even within the categories of "native" and "non-native," rhetorical strategies can adapt to institutional expectations and the communicative purposes of academic discourse.[13]

Disciplinary variation further highlights the flexibility of rhetorical practices. In Linguistics, conclusions place more emphasis on Move 2, which focuses on argument development and presentation of results. Conversely, articles in Education prioritize Move 3, giving more weight to implications and recommendations. This observation corresponds with Liming Deng and Jing Liu (2023), who assert that academic communities in each discipline establish distinctive rhetorical norms for structuring conclusions.[14] Thus, rhetorical patterns should not

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[12] Gao, S., & Pramoolsook, I. (2023). A cross-cultural move analysis of electronic engineering research article introductions: The case of Chinese, Thai, and native English scholarly writers. *Ampersand*, *10*, 100106. https://doi.org/10.1016/j.amper.2022.100106.

[13] Wirada Amnuai and Anchalee Wannaruk, "A Move-Based Analysis of the Conclusion Sections of Research Articles Published in International and Thai Journals," *3L: Language, Linguistics, Literature®: The Southeast Asian Journal of English Language Studies* 24, no. 2 (2018): 1–20.

[14] Deng, L., & Liu, J. (2023). Move–Bundle Connection in Conclusion Sections of Research Articles Across Disciplines. *Applied Linguistics*, *44*(3), 527–554. https://doi.org/10.1093/applin/amac040

be regarded as rigid templates but rather as adaptable resources that can be aligned with disciplinary needs.[15]

At the step level, additional variations emerge. Linguistics texts more frequently employ Step 2.1, which focuses on summarizing results, whereas Education texts tend to employ Step 3.2, which emphasizes generalizing findings and offering recommendations. These differences indicate that authors from distinct disciplines not only structure their conclusions differently but also select micro-rhetorical strategies that align with their discipline's epistemological values. The implication is that academic writing instruction should adopt discipline-specific approaches, rather than relying on a uniform model applicable to all fields.

This study also uncovers grammatical dimensions of Arabic academic writing. The distribution of tense reveals that the past tense (māḍī) is more dominant when reporting results, while the present/future tense (muḍāriʿ) is more frequently used in Move 3 to emphasize continuity and the prospective nature of findings, consistent with Danis' cross-disciplinary research highlighting the prospective function of tense in academic conclusions. Similarly, the tendency to employ modality in the discussion and closing sections suggests that tense choice is not merely grammatical but also rhetorical, serving to underscore generalization and implications of findings.[16] In terms of voice, the active form (maʿlūm) is more prevalent than the passive (majhūl), though passive constructions are strategically employed when authors aim to present objectivity or impersonality, as noted in studies on passive constructions in Arabic academic writing.[17] These findings enrich the existing literature, as few prior studies have linked rhetorical structures with grammatical choices in Arabic academic texts.

Theoretically, this study contributes to genre analysis by demonstrating that the move–step framework of Swales remains

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[15] Kawase, T. (2025). Move combinations in the conclusion section of applied linguistics research articles. *Pragmatics. Quarterly Publication of the International Pragmatics Association (IPrA)*, *35*(2), 185–201. https://doi.org/10.1075/prag.22070.kaw

[16] Sadegh Rahimi and Ali Kashiha, "Modality in the Moves of the Discussion Section of Research Articles," International Journal of Applied Linguistics (Indonesia) 34, no. 1 (2024): 163–181, https://doi.org/10.17509/ijal.v34i1

[17] Huang, Y.-H. C., Wang, X., Fong, I. W.-Y., & Wu, Q. (2021). Examining the Role of Trust in Regulators in Food Safety Risk Assessment: A Cross-regional Analysis of Three Chinese Societies Using an Integrative Framework. *Sage Open*, *11*(4). https://doi.org/10.1177/21582440211061579

applicable to Arabic academic texts, but requires adjustment to accommodate linguistic and cultural specificities. The interaction between rhetorical structure, tense choice, and voice illustrates that academic discourse is shaped by both global conventions and local traditions. This perspective supports the view that genre frameworks are adaptive to the needs of diverse discourse communities,[18] and that combinations of moves can operate systematically yet flexibly to serve different communicative purposes.[19] Moreover, the interplay between rhetorical steps and lexical markers across disciplines suggests that rhetorical patterns are not static but dynamic, evolving with epistemological contexts.[20] In this way, the findings support Yang and Allison's (2003) assertion that rhetorical structures in academic writing are systematic as well as flexible.

Practically, the results offer important insights for the teaching of academic writing, particularly for non-native writers of Arabic. Emphasizing the obligatory role of Move 2, while also acknowledging the disciplinary variation in Moves 1 and 3, can help students craft more effective and contextually appropriate conclusions. This aligns with genre- and corpus-based pedagogical approaches that stress adapting writing strategies to the characteristics of each discipline.[21] Furthermore, raising awareness of grammatical tendencies, such as the shift from past tense when reporting results to present/future tense when presenting implications, can strengthen writers' ability to align linguistic form with communicative function. This awareness is particularly significant since the discussion and conclusion sections often serve as strategic spaces for highlighting research implications and recommendations, which also function as a form of academic self-promotion.[22]

Nevertheless, this study is not without limitations. While the corpus size is sufficient to reveal general patterns, it may not fully capture the diversity of Arabic academic writing across different regions and institutions. Additionally, the analysis focused solely on the

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[18] Ken Hyland, Genre-Based Instruction and Corpora," TESOL Quarterly 58, no. 3 (2024): 1227–1234, https://doi.org/10.1002/tesq.3273

[19] Tomoyuki Kawase, "Move Combinations in the Conclusion Section of Applied Linguistics Research Articles,".

[20] Deng, L., & Liu, J. (2023). Move–Bundle Connection in Conclusion Sections of Research Articles Across Disciplines.

[21] Ken Hyland, Genre-Based Instruction and Corpora.

[22] Making Room for Research Promotion in Research Article Discussion/Closing Sections," *English for Specific Purposes 74* (2024): 101, https://doi.org/10.1016/j.esp.2024.100

conclusion sections, without examining their relationship to other parts of the article. Future research could employ larger corpora and adopt a cross-sectional approach to explore rhetorical and grammatical variation throughout entire articles, including comparisons across different types of academic publications.

In conclusion, the findings indicate that the conclusion sections of Arabic academic articles embody rhetorical practices that are simultaneously universal and local. By combining move–step analysis with grammatical investigation, this study provides a comprehensive account of how Arabic academic writers construct their conclusions. The results not only deepen our understanding of Arabic academic discourse but also offer practical implications for writing pedagogy that is sensitive to linguistic, cultural, and disciplinary contexts.

Conclusion

This study concludes that the rhetorical structure of conclusions in Arabic research articles demonstrates patterns that are both consistent and variable. The summary of findings (Move 2) consistently emerges as an obligatory element, while the introduction (Move 1) and implications or recommendations (Move 3) appear more flexible, depending on the author's linguistic background and disciplinary field. At the linguistic level, the use of the past tense (*māḍī*) is more dominant when reporting results, whereas the present/future tense (*muḍāriʿ*) is more frequently employed to express implications or research prospects. In terms of voice, the active form (*maʿlūm*) tends to be more prominent, although the passive form (*majhūl*) is strategically used to emphasize objectivity.

Theoretically, these findings enrich genre analysis by showing that the move–step framework remains relevant in the context of Arabic academic writing, but must be understood in relation to cultural and disciplinary factors. Practically, the study provides guidance for the teaching of academic writing, particularly for students and non-native authors, by highlighting the centrality of Move 2 as an obligatory element, as well as raising awareness of grammatical choices aligned with communicative functions. Lecturers and supervisors may also draw on these results to design more contextualized writing instruction strategies.

Nevertheless, this study is limited by the relatively small size of the corpus and its exclusive focus on the conclusion section. Future research is therefore recommended to expand the scope of data, both in

terms of quantity and the diversity of publication types, as well as to investigate interconnections across sections of the article as a whole. Such an approach would enable a more comprehensive and in-depth understanding of rhetorical and grammatical practices in Arabic academic writing.

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