

Genre Analysis of Research Article Conclusions in Ghanaian Journals

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Abstract

The schematic structure of the research article (RA) has been explored by many genre analysts. Apart from Swales' seminal discussions on RA introductions and Hyland's analysis of abstracts, several studies have explored other sections of research articles. However, not much is known about the conclusion section of RAs. This study set out to analyze the conclusion sections of articles from two Ghanaian peer-reviewed humanities journals applying Swales' rhetorical move analysis. Analyzing the schematic structure and linguistic realizations of the conclusion sections extracted from 20 RAs, the study identified three key rhetorical moves (Summarizing the Research Process, Making Key Arguments, and Making Deductions), and one optional move (Stating Limitations). The study also observed variations in the sequencing of the moves, with some instances of recurrence. The various moves were also characterised by some linguistic and grammatical peculiarities which were dictated by the sub-communicative purpose of each move. The concordance tool in AntConc Software (version 4.2.4) assisted in the analysis of keywords in context (KWIC). These findings have implications for theory and the teaching of Academic Writing in Ghanaian Higher Education.

Keywords: research article, the conclusion, genre theory, academic writing, rhetorical moves

Introduction

The research article (RA), also termed journal article, has long been a major part of academic communities as an important written genre. Its significance stems from their use to disseminate knowledge or report on research contributions to an academic community (Swales and Feak 2004). This written academic genre has been the focus of several genre studies. Genre analysts have extensively explored the research article focusing on abstracts (Hyland 2000; Agbaglo Fiadzomor 2021), introduction (Swales 1981; Atai and Habibie 2012), results (Brett 1994; Bruce 2009) and discussion (Holmes 1997).

Some studies on RA have established that it mainly has the introduction-methods-results-discussion (IMRD) structure, with each section communicating a different, but connected, purpose (Swales and Feak 2004). The introduction section sets the rationale and discusses the thesis of the research from a more general to a specific discussion. The methods section provides a brief exposition to the research procedures, including data and sampling. The results component of the RA details the findings of the research, whereas the discussion unit interprets and gives meaning to the results (*ibid*). While these units constitute the integral generic stages of the research article, it is noteworthy that research papers in some journals, especially in

the humanities, have the conclusion section which, like other parts of RA, also need to be investigated.

We argue the importance of the conclusion section from two related viewpoints. First, the conclusion of the research article provides a summary of the findings and key arguments. Second, a preliminary analysis of research article conclusions does not only reveal a restatement of the research findings, but also the implications of the findings and recommendations from the researcher. These, we contend, are very pertinent to the research article which seeks to contribute to knowledge and influence policy and opinions. Consequently, a detailed exploration of the rhetorical features of the conclusion will offer insight into how researchers interact with the discourse community and the society beyond communicating their research output. Notwithstanding the significance of RA conclusions in providing closure, stating implications and making recommendations based on findings, this section of RAs is insufficiently studied. This study, therefore, examined the generic structure and linguistic realizations of the conclusion section of 20 research articles from two humanities journals in Ghana. This study contributes to the argument that genres are subject to variation across disciplines and genre analysts need to situate their findings in context. The current study is situated in the context of two Ghanaian journals – Legon Journal of the Humanities and Drumspeak: International Journal of the Humanities.

Two research questions were pertinent to this study:

1. What is the schematic structure of research article conclusions?
2. How are the moves in the conclusion of research articles realised linguistically?

Literature Review

In this section, a review of previous literature on genre and research articles and the theoretical framework are presented.

Previous studies on research articles

The literature records quite a few studies on research article conclusions. Some notable mentions are Yang and Allison (2003), Amnuai and Wannaruk (2013), Liu and Xiao (2022), and Alkamillah et al. (2022). These previous studies, however, differ from the current study as they mostly focused on the generic structure paying little or no attention to linguistic realizations. Besides, Yang and Allison, applying Swales model, focused on the results, discussion, conclusion and pedagogical implications sections, which probably contributed to the lack of in-depth analysis of the conclusion section. That notwithstanding, their study of two decades ago has influenced some further studies and called for application of genre theories to conclusion sections.

Yang and Allison (2003) identified three moves: summarizing the study, evaluating the study and deductions from research. Under the second move, they identified three steps – indicating significance, indicating limitations and evaluating methodology. The third move has ‘recommending further research’ and ‘drawing pedagogic implication’ as steps. Yang and Allison’s study observes that the first move,

summarizing the study, is the most frequent. The study notes that the communicative purpose of the RA conclusion is to summarize the research, highlighting the findings, pointing to further studies and suggesting implications for pedagogy. They conclude by highlighting the flexibility of the research article structure. Observably, Yang and Allison's study focused only on organizational structure and not the linguistic realizations of the moves.

Applying Yang and Allison's move structure to the analysis of 40 research articles, Amnuai and Wannaruk (2013) observed the three moves (summarizing the study, evaluating the study and deductions from research) but with less frequency. Their 40 research articles consisted of 20 articles from Thai journals and 20 from international journals, as they sought to compare the two sets. The study observed that none of the three moves constituted an obligatory move. They also observed different sequential patterns of the moves, confirming Bhatia's (1991) position that sequencing of moves is characterized by certain degree of flexibility. Similar to Amnuai and Wannaruk's study, Alkamillah et al. (2022) analyzed the moves of RA conclusions in two journals. Thirty research articles from two Indonesian journals constituted their data. The study confirmed the presence of three moves (summarizing the study, evaluating the study and deductions from research) and revealed that Move One, summarizing the study, was found to be obligatory whereas the remaining two were 'conventional' in their own term. The study, however, provides no commentary on the basis for classifying the moves. Besides, like Yang and Allison's, their study centred on the move structure only. Identifying the linguistic choices does not only serve a pedagogical purpose but also, it adds evidence to the relationship between linguistic choices and discourse functions.

Liu and Xiao (2022) analyzed the conclusion section of RAs using Biber's multi-dimensional analysis. They explored the variations in linguistic resources within the conclusions of research articles from the social and natural sciences. The study adopted 5 out of the 7 dimensions proposed by Biber and found that conclusions in the social and natural science research articles are information condensed. The social sciences additionally recorded more WH clauses, emphatics, infinitives, necessity and possibility modals than the natural sciences, indicating the interactive nature of the former. The study, however, observed that conclusions from both disciplines are non-narrative as they reported the frequent use of present tense and attributive adjectives, indicating a descriptive discourse. Liu and Xiao equally observed the frequent use of conjuncts, subordinating adverbs and predicative adjectives in the social science conclusions compared to the natural science conclusions which used more (agentless and by-) passives. The emphasis of Liu and Xiao's study on the functional choices of lexicogrammatical elements is quite relevant to the aspect of this study that explores the distribution of grammatical elements across the moves.

The review of relevant literature has opened gaps in the existing literature. For instance, it has revealed that there is great flexibility in the organizational structure and linguistic choices in the sections of RA and moves in the conclusion section. However, there is inadequate exposition on the classification of moves, the status of the moves and the linguistic features of the conclusion section of research articles.

Similarly, the literature review gives hints about the skewed provenance of research in this area. Many of these studies have focused predominantly on articles from Asian journals where English is used as a foreign language. Replicating it in a second language context should yield insightful results. It is these gaps that the current study seeks to occupy.

Theoretical Framework

This study is underpinned by genre theory. There are three main traditions of genre theory – New Rhetoric, Systemic Functional Linguistics and English for Specific Purposes (ESP). The New Rhetoric tradition is influenced by the rhetorical tradition which underscores the relationship between text type and rhetorical situation. Systemic Functional Linguistics (SFL), developed by Halliday, has significantly influenced genre theory as it emphasizes the role of ‘context’ in language use (Hyland 2002). The ESP approach, championed by Swales and Bhatia, combines some features of the other traditions (such as intertextuality and text structure from New Rhetoric and SFL, respectively) with pedagogy (*ibid*). The current study is underpinned by Swales (1990) Rhetorical Genre theory, within the broader framework of the ESP approach to genre analysis.

Swales (1990) notes the importance of a text’s communicative purpose and how it dictates the schematic structure of texts as well as governs their linguistic choices. Swales identifies sub-communicative purposes for the parts of genre, termed ‘Moves’. Moves and their respective communicative functions are the key components of a genre. Bhatia (1996) notes that moves vary in length as they may range from a single clause to multiple sentences. Moves may be realized by other rhetorical strategies known as ‘Steps’ (or sub-moves). The determination of moves (and steps) is based on their communicative purpose; any part of a (sub)genre that indicates a “communicative intention subservient to the general communicative purpose” is a move (Liu 2012). Following this argument, the communicative purpose of RA conclusions (conveying logical conclusions from a study) is realized by different-but-related ‘subservient’ purposes. The boundaries to moves are determined by a cognitive-semantic structuring of the text (Nwogu 1990); a shift in theme or topic may signal a new move. For instance, a recap of the methods used for a study, and the implications of the study are two independent moves that contribute to the conclusion of the RA. After determining a move, an analyst may assign a tag or name – a form of coding – which may be based on the features or function of the move. For example, Hyland (2000) opts for introduction, purpose, method, product and conclusion as the five moves of RA abstract (based on the function of the moves in the abstract). The current study follows this method of naming moves by using phrases that capture the function of the move or step (e.g., summarizing findings).

Some moves are defining of a genre and, hence, are always present, while others are optional. Huttner (2010) proposes a classification of moves based on their frequency in a genre. He identifies obligatory, core, ambiguous and optional moves (see Table 1).

Table 1: Guidelines for determining the status of Moves

Frequency of occurrence	Status	Comment
90%-100%	Obligatory	genre exemplar, usually considered inappropriate or in some way “flawed” <i>without</i> this move
50%-89%	Core	typical of the genre, considered part of an appropriate and acceptable genre exemplar
30%-49%	Ambiguous	status can only be decided with further expert information – can be core or optional, acceptable or unacceptable
1%-29%	Optional	not considered a typical feature of genre, can be considered an acceptable addition

Source: Hüttner 2010, p. 205

Analyzing moves from Swales’ perspective involves a formal and substantial analyses of a given text (Afful and Gyasi 2020). The first phase of analysis, the formal, involves identifying the structure of the moves (and steps for realizing the moves, if any), including the number of moves and their communicative purpose. The second phase centres on the linguistic/lexicogrammatical resources that characterize the various moves and contributes to the communicative purpose of the genre. This study applies both phases for the analysis of the generic structure and linguistic features of research article conclusions. The applicability of this theory to analyzing academic genres is widely reported in the literature (cf. Liu 2012; Amnuai and Wannaruk 2013; Afful and Gyasi 2020; Alkamillah et al. 2022).

Methodology

Legon Journal of the Humanities (hereinafter LJH) and *Drumspeak: International Journal of the Humanities* (hereinafter Drumspeak) are two highly recognized journals affiliated to the University of Ghana and University of Cape Coast, respectively. The two journals are double-blind-peer-reviewed academic journals. Established in the 1970s, LJH is one of the oldest open access academic journals in Ghana. Though established by the erstwhile Faculty of Arts of University of Ghana, it is currently managed by the College of Humanities in the same university and accepts

research from the Arts and Social Sciences. The journal currently has 34 volumes, the latest of which was published in 2023. Drumspeak is a relatively new journal published by the Faculty of Arts, University of Cape Coast in Ghana. The journal accepts research contributions in the humanities, including the Arts and Languages. Six volumes have been published so far, with the latest volume (a special edition) published in 2023. The study is situated in the qualitative approach of research. Data were retrieved from the websites of LJH (<https://www.ajol.info/index.php/ljh>) and Drumspeak (<https://journal.ucc.edu.gh/index.php/drumspeak>). The archives of the two journals house all published volumes. For this study, two latest volumes of each journal were selected, which coincidentally included a special issue for each journal. The decision to select the latest volumes was because we wanted to analyze the current trends in conclusion writing. The two volumes from LJH were published in 2023 and the special issue was based on research papers on COVID-19 presented at a conference organized by the School of Languages, University of Ghana. There were 11 research articles in the two volumes. The two latest volumes in Drumspeak were also published in 2023. The Special Issue brought together five (5) research articles that analyzed Amma Darko's, *Beyond the Horizon*, a Ghanaian literary text. There were 12 research articles in the two volumes of Drumspeak, bringing the total of RAs to 23.

Purposive sampling was required when one (1) of the articles from Drumspeak did not have a section on conclusion (probably because the author is aligned with the IMRD structure of RA). Also, two (2) research articles from Legon Journal of Humanities were omitted: one had combined the discussion and conclusion sections in a manner that it was difficult to analyze it without compromising the results since discussion performs an entirely different function from conclusion; the other article was written in French. As such, out of the total of 12 articles in Drumspeak, 11 were sampled based on the presence of a conclusion section and the language of presentation – English being the target for this study. The same criteria were applied to the LJH dataset and, as a result, nine (9) articles were purposively sampled for the study. In total, 20 research articles were analyzed for the study. Obviously, there is variation in the number of articles from the two journals with 9 articles from LJH and 11 from Drumspeak. However, this does not weaken the validity of the discussions since this is not a comparative study.

The conclusion sections of all the articles were retrieved and stored in a document with labels assigned to each of them for identification purposes. Since this study did not seek to compare the two journals, no distinction was made between the conclusions from LJH and Drumspeak. Rather, these 20 conclusions were coded C1 to C20; the 9 articles from LJH were coded C1 to C9, and the 11 articles from Drumspeak had the labels C10 to C20. Moves were coded as M1, M2, M3, etc. When a Move had a Step or Steps, S₁, S₂, etc., were used. For instance, M1S₂ is the code name for Move 1, Step 2.

After identifying the moves, Hüttner's (2010) model (refer to Table 1 above) was used to determine the status of the moves. The second research question which sought to explore the linguistic features of the conclusion section was answered based on

lexicogrammatical features that construed the purpose of the moves. Concordance and keyword features of AntConc complemented the analysis.

With the development of corpus tools like AntConc, WordSmith Tools and Sketch Engine, researchers are able to identify word frequencies, concordances, keywords, cluster patterns and/or collocations in a corpus with the help of in-built software which generates results in a short time. In this study, the latest version (4.2.4) of the AntConc software which has Concordance, Cluster, and Collocate Tools was used. AntConc was chosen for this study due to its easy accessibility; besides, its applicability in genre studies is largely recorded in the literature.

Analysis and Findings

In this section, we report and discuss the findings of the study. Two main research questions guided the study. This section, as such, is structured into two; the first part presents the findings on the move structure and sequencing of research article conclusions in the selected data. The linguistic features are captured in the second part.

1. Schematic structure of research article conclusions

The first research question focused on the generic structure of the RA conclusion section. Using Swales' move analysis framework, we identified and classified the moves. Table 2 below shows the frequency and status of the moves in the 20 articles. As stated above, Hüttner's (2010) model for determining the status of moves was used in the classification.

Distribution and status of moves

The study identified four moves in the concluding section of the research article: Summarizing the Research Process, Making Key Arguments, Making Deductions and Stating Limitations. These moves varied in their frequency; hence, their status in research article conclusions vary. Table 2 presents the four moves, the steps that realize the moves, their frequencies and status. From the left, the first column shows the four moves; the second column details the steps of each move, followed by the names of the move(s), names of the step(s), the frequency in the 20 articles (i.e., how many times they appear in the 20 articles). The last two columns show the percentage of the frequency and the status of the moves.

Table 2: Frequency of moves and steps in research article conclusions

Moves	Steps	Name of Move	Name of Step	Freq. in 20 RA	Freq (%)	Status
Move 1		Summarizing Research Process		12	60%	Core
	1.1		Stating background	4	20%	
	1.2		Stating purpose	8	40%	
	1.3		Stating approaches	4	20%	
Move 2		Making Key Arguments		20	100%	Obligatory
	2.1		Summarizing findings	20	100%	
	2.2		Situating findings in literature	8	40%	
Move 3		Making Deductions		13	65%	Core
	3.1		Drawing implications	6	30%	
	3.2		Recommending further research	6	30%	
Move 4		Stating Limitations		1	5%	Optional

It can be observed from Table 2 that the four (4) moves identified in the RA conclusions vary in the number of steps each move has. Move 1 (M1), Summarizing Research Process, is realised by three steps – *Stating Background*, *Stating Purpose* and *Stating Approaches*. The second move (M2), Making Key Arguments, has two steps – *Summarizing Findings* and *Situating Findings in Literature*. Making Deductions was identified as the third move (M3), with *Drawing Implications* and *Recommending Further Research* as two steps. The fourth move (M4) identified was Stating Limitations which had no step.

Table 2 also shows the varying frequencies of the moves which translates into their status. Out of the 20 research article conclusions, Move1 appears in 12, representing 60%; Move 2 appears in all 20 (100%); Moves 3 and 4 have a frequency of 13 and one (1), representing 65% and 5% respectively.

With the steps that realize the various moves, Table 2 shows that, in Move 1, the three steps have varying frequencies with *Stating Purpose* being the most frequent eight (8), followed by *Stating Background* and *Stating Approaches* which both appear

four (4) times. The two steps observed in Move 2, *Summarizing Findings* and *Situating Findings in Literature*, have a frequency of twenty (20) and eight (8) respectively, with *Summarizing Findings* having a 100% of usage in all the 20 RA conclusions. The two steps in Move 3 each appears in six (6) out of the 20 research articles. Based on the frequencies of the moves, and in accordance with Hüttner's (2010) model for analyzing moves, the study observes that Move 2, Making Key Arguments, is an Obligatory Move; Moves 1 (Summarizing Research Process) and 3 (Making Deductions) are Core, while Move 4, Stating Limitations, is Optional.

Sequencing of moves

The analysis revealed some peculiarities and differences in the sequencing of moves in all 20 RA conclusions. Table 3 presents the move patterns in all 20 research article conclusions.

Table 3: Sequential structure of moves in RA conclusions

RA Conclusions	Move Pattern
C1	M1-M2-M3- M2-M3
C2	M1-M2-M3
C3	M2-M3-M2
C4	M1-M2-M3- M2-M3
C5	M1-M2-M3
C6	M2-M3
C7	M1-M2
C8	M2-M4-M3
C9	M2-M3
C10	M1-M2-M3
C11	M2-M3
C12	M2
C13	M1-M2
C14	M2-M3
C15	M2-M1- M2
C16	M1-M2

C17	M1-M2-M3
C18	M1-M2-M3
C19	M2
C20	M1-M2

From Table 3 above, two key observations can be made. First, Move 2 is the only constant in all the move-patterns, emphasizing its status as an obligatory move. Second, not a single one of the concluding sections had all four moves. That is, even though the study identified four different moves in RA conclusions, all four moves are not utilized in one concluding section. The study reveals one-move pattern (two occurrences), two-move pattern (eight occurrences) and three-move patterns (10 occurrences) in RA conclusions, which have instances of some moves recurring.

The one-move patterned conclusions featured only Move 2, *Making Key Arguments*, and the Step, *Summarizing Findings*. It is the observation of this study then that some scholars only restate key arguments or findings when concluding their research articles. This is instantiated by the conclusion from one of the articles:

Extract 1 (C12):

The study concludes that the aged with a disability who were aged 60-69 years had the highest environmental health QOL, and it was lowest among those who were aged 80 years and older. It was found that those who were married had the highest environmental health QOL and the lowest was among those who were separated/divorced. The study observed that those with physical disability had higher environmental health QOL than those with visual disability. The findings of this study highlight how the background characteristics of the aged with disability influenced their environmental health QOL.....

In the extract above, the author makes his arguments by reporting the findings on the relationship between the two variables of the study, *aged with disability* and *environmental health quality of life* (QOL). It can be observed that there is no attempt to recap the processes followed in conducting the research, including stating the methods used. Also, discussions on research implications and recommendations, as well as research limitations are not featured in this particular conclusion. This places prominence on *Making Key Arguments* (and *Summarizing Findings*) as a ‘defining move’ (constituting generic integrity) of the RA conclusion.

The other move-patterns (two-move and three-move patterns) have Move 2 as their ‘nucleus’, paired with either one or two of Moves 1, 3 or 4. For instance, whereas C7, C13, C16 and C20 are two-move conclusions comprising Move 1 (*Summarizing the Research Process*) and Move 2 (*Making Key Arguments*), C6, C9, C11, C14 combine Moves 2 and 3 (*Making Deductions*). The only conclusion that features Move 4, *Stating Limitations*, is the three-move conclusion coded as C8, which has Moves 2, 4

and 3 in that sequential order (Refer to subsequent sections for the discussion of Move 4).

Finally, one can observe from the sequencing of the moves an interesting phenomenon of recurrence. The difference in patterns discussed above already points to the flexibility of move sequencing discussed by Bhatia (1991) and reiterated by Amnuai and Wannaruk (2013). The flexibility is equally seen in the repetition of moves. The study observed that there are no clear 'boundaries' of moves as moves are fluid and cannot be confined by space. For instance, it was observed that some authors follow-up their summary of each finding with deductions or implications. This leads to a pattern like M1-M2-M3-M2-M3 as there is a discussion of another finding after drawing implications from the previous, as was the case of C1 and C4. It is significant to note that the recurring moves were Moves 2 and 3, which may be as a result of the style of discussing one finding and drawing implications before moving to the next. In the next section, we discuss how the moves are realized linguistically.

2. Lexico-grammatical features of moves in RA conclusions

This part of the study complements the structural features of RA conclusions by exploring the linguistic features of the moves. We begin by exploring how the identified moves are rendered, focusing on the lexicogrammatical features. The analysis is then complemented with relevant keywords in the data set, using the concordance tool of AntConc 4.2.4 Software.

One main theoretical standpoint in genre studies is how communicative purpose (ESP) or situational and cultural context (SFG) shape the structure and linguistic choices of a genre (Hyland 2002; Halliday and Matthiessen 2014). The lexicogrammar of the moves in research article conclusions is explored here to determine the contribution of the linguistic features to the communicative purpose of the various moves. As such, extracts are drawn from the data to discuss the three key moves – *Summarizing the Research Process*, *Making Key Arguments* and *Making Deductions*, as well as the optional move, *Stating Limitations*.

Linguistic realization of key moves in RA conclusions

Move 1: Summarizing the Research Process

The first (core) move of the RA conclusion is *Summarizing the Research Process*. The sub-communicative intention of this rhetorical feature is to present an overview of the research and approaches used to conduct the study. A summary of the research process serves as a recap of what the author set out to do and also refreshes the memory of the reader. This is congruent with Yang and Allison (2003) who note that the main purpose of the conclusion is to summarize the study. This Move, however, only summarizes the research approach and is characterized by three sub-rhetorical units in the form of *stating background*, *stating purpose* and *stating approaches*.

Step 1.1: Stating Background

Some research article conclusions begin with the author establishing the context or background of the research. Background to a study is an integral part of the research

process and one of the key aspects to writing an introduction to a thesis. It makes it possible to situate the study in its proper context by engaging with current literature while establishing the niche for the study. In conclusions, this is a rarity as demonstrated by the less frequency of occurrence. In one of the data, the author begins the conclusion by highlighting the background of the study:

Extract 2 (C13):

*IFAs **are expected** to link MNEs with well-known credentials of greater commitment to ensuring labour rights with their subsidiaries where there is less enforcement of such social human rights (Evans 2014). They **are** also **expected** to be instruments for promoting the social regulation of such corporations. Bourque et al. (2018) have maintained that such agreements **are expected** to have three ingredients.... Indeed, Fichter et al. (2013) indicate that the effectiveness of an IFA is dependent on appropriately engaging the unions associated with the GUFs in producing IFAs and involving such worker unions in monitoring.*

One observes the preference for complex sentences in the excerpt above; all the sentences are complex whose discourse function is to relate unequal structures in the same sentence. But one striking linguistic feature of this excerpt is the repetition of passive structures. In this extract, the author uses the same passivized verb phrase '**are expected**' in the first three sentences to portray 'what should be' in relation to the object of study. The author notes the 'ideal' situation of the phenomenon and, through engagement with the literature (the literature is likely the agent, indicating the expected relationships, in the passive structures), recapitulates the problem she or he intended to solve in the study. Researchers differentiate between 'what it should have been' and 'what it is' when establishing a research problem. While this feature is common with Introductions to RAs (Swales 1981, 1990), it is infrequent in the conclusion section. The few authors who use this rhetorical feature restate the 'ideal' (enacted by the use of the VP: *are expected*) before discussing their findings in RA conclusions.

Step 1.2: Stating Purpose

The first move is also realized by the rhetorical unit, *stating purpose*. This step is a statement of what the researcher set out to do. Unlike *stating background*, this step was found to be frequent in *Summarizing the Research Process* Move. The purpose of a study refers to the aim of the research. Conventionally, the research purpose is characterized by a *to-infinitive* structure as demonstrated in one of the data sets:

Extract 3 (C5):

*Premised on Hyland's view of the social interactive nature of academic writing and drawing from the Hallidayan transitivity framework, **this study set out to investigate the construction of authorial presence or voice in***

the methodology sections of research articles published in selected African and Western journals...

The clause in bold communicates the intent of the research, restating what the researcher sought to achieve. Just like the purpose statement in research introductions, this Step provides the direction of the research. Four parts of this rhetorical feature can be observed in the extract: *type of research*, *central phenomenon*, *data* and *research context or site*. The use of *to-infinitive* clauses is a common feature in stating the purpose of a research. Expressions like “The purpose of this study is/was to...” followed by action verbs like *explore*, *understand*, *examine* or *discover* are very characteristic of purpose statements (Creswell 2012, 2014). The action verbs communicate the type of research, and in the case of this extract, it was an investigation (to investigate). The central phenomenon being investigated is captured as “Construction of authorial presence or voice”. The data for the study is “methodology section of research articles” and the study context is journal article (African and the Western journals). These features sum up to communicate the purpose of the research in the concluding section.

Also, the use of the noun phrase “this study” as the subject in the second clause and not “the researcher” or personal pronouns is grammatically dictated by the preceding *-ed* and *-ing* (participial) non-finite clause “Premised on Hyland’s...and drawing from Hallidayan...”. As is the case of the two non-finite clauses identified, the subject of non-finite clauses is commonly absent (Quirk et al. 1985), which means that the action in such clauses is performed by the subject in the superordinate clause on which they depend. As such, the actions of *premised* and *drawing* are performed by “this study”, which is more logical than if the author were to use “the researcher” or *I*. The grammatical restrictions aside, reporting findings in empirical research is usually characterized by impersonality (Hyland 2001). Impersonality, where there is absence of the researcher or human agency, is preferred by positivists as they hold that an objective reporting of research means more focus on the data and findings and less on the researcher. It is the observation of this study that RA conclusions in humanities journals which receive articles from Ghanaian and other African scholars are characterized by impersonal use of language as demonstrated in the stating purpose step within the Summarizing Research Process Move. This is not surprising given that the humanities as a broad discipline is home to divergent philosophical orientations, including positivism.

Step 1.3: Stating Approaches

As part of summarizing the research process, some researchers detail the theories and methods they employ in the study. For instance, in Extract 3, the first part of the clause states that the study employed “Hyland’s view of the social interactive nature of academic writing” and “Halliday’s transitivity framework”. This Step, which is usually in close proximity with the Stating Purpose Step within Move 1 (as observed in Extract 3, where the two steps are construed in one complex sentence) signals the end of the Move and ushers in the next Move, Making Key Arguments.

Move 2: Making Key Arguments

The second move was identified to be the only obligatory move, with 100% frequency in the data set. Obligatory moves define a particular genre as they ‘evoke’ the generic integrity of a genre (Afful and Gyasi 2020). The communicative purpose of *Making Key Arguments* is to restate the key results of the study and how the results relate with the literature. As such, it is realized by two Steps – Summarizing Findings and Situating Findings in the Literature. The linguistic realization of Move 2 is discussed, focusing on the two sub-rhetorical features.

Step 2.1: Summarizing Findings

Summarizing findings involves a restatement of the key findings in the study. This constitutes a key step of the move. The discourse is usually narrative as there is the frequent use of past tense to convey the results of the study, though some authors prefer to use present tense in their summary of findings. Extract 4 exemplifies the realization of *Summarizing Findings*.

Extract 4 (C2):

*Findings from the study suggest that voice-over Telenovelas appeal to all irrespective of gender, age and educational background. From the study, private TV stations have attracted the illiterate, semi-literate and the literate and are getting a higher market share due to their telecasting of Telenovelas in Ghanaian languages. MAX TV, a private TV station is predominantly preferred among study participants, followed by UTV and Adom TV.....
Evidence from the study further showed that releasing stress and education were the main reasons why participants watch these voice-over Telenovelas...*

As shown in the extract, the verbs used to report the findings of a study may be in the present or past tense. It is observed from the extract that the author uses both past and present tense in reporting the findings. In the first instance, the expression “Findings from the study” is followed by the verb ‘suggest’ in its present tense form. In the second instance, a similar lexical bundle, Evidence ‘*from the study*’, is followed by the verb “showed”, the past tense form of ‘show’. The blend of present and past tense in reporting findings shows that this move does not only narrate (characterised by past tense) but also describes (using present tense) the findings in the context of present time. This corroborates Liu and Xiao’s (2022) finding that conclusions tend to use present tense frequently in a descriptive rather than narrative discourse.

Another linguistic feature of this key part of RA conclusions is the variations in the verbs for reporting findings. The data shows the frequent use of forms of *show*, *find*, *reveal*, and *discover*. The most frequent reporting verb used is the forms of ‘show’ (*showed* and *shown*) which had 18 hits in AntConc Keyword in Context (KWIC) search (see Fig. 1).

KWIC Plot File View Cluster N-Gram Collocate Word Keyword Wordcloud				
Total Hits: 18 Page Size 100 hits 1 to 18 of 18 hits				
	File	Left Context	Hit	Right Context
1	Data RA ...	perspective, context, implementation and enforcement, the Ghana case study	shows	that AngloGold is not a —working signatory to the
2	Data RA ...	OFLI, vital lessons learnt from the crisis-prompted online education	show	that blended OFLI can be used effectively for all
3	Data RA ...	attention to the Conradian and Fanonian intertexts, the paper has	shown	that Darko subtly frames Mara's encounter with Europe
4	Data RA ...	the fast-degrading state of female bodies, my analysis has	shown	that Darko's feminist vision in her first novel
5	Data RA ...	law and order in Ghanaian jurisprudence. Particularly, this study has	shown	that interactional management (especially, turn allocation) in the Ghanaian
6	Data RA ...	The current study on OFLI during the COVID-19 pandemic has	shown	that issues with technology, such as bad internet connectivity
7	Data RA ...	relevant and also functional especially outside Africa, this research has	shown	that local and national unions should be assisted by
8	Data RA ...	sign language enjoyment and motivation. Notwithstanding, the study has also	shown	that OFLI offers certain advantages which seem to outweigh
9	Data RA ...	sure advertising interruptions are interesting. Evidence from the study further	showed	that releasing stress and education were the main reasons
10	Data RA ...	and nuances of such agreements. The case of AGA, Ghana,	shows	that the national and local unions will need a
11	Data RA ...	education is the knowledge acquired on fashion trends. Study findings	showed	that younger Telenovela viewers (i.e., University students and
12	Data RA ...	to the IFA. AngloGold's corporate commitment to a CCC	showed	the HR strategy it adopted after signing two framework
13	Data RA ...	up debates on essence and diversity, as my analysis has	shown,	the paper concludes that a new politics that stresses
14	Data RA ...	and the description of Ghanaian English. C11 The study has	shown	the short-sighted nature of punitive justice in the
15	Data RA ...	their effectiveness at the subsidiary level. The global picture has	shown	advances at the MNE level across political and legal
16	Data RA ...	Facebook, Twitter, and Instagram as spaces for poetic expression as	shown	by Adenekan (2021), Yékú (2022), and Arenberg (2016). While these example

Figure 1: the occurrence of the verb 'show' in the data set

The concordance feature of AntConc (version 4.2.4) presents keywords in their context of use. In Figure 1 above, the keyword, *show** (i.e., all forms of show), is highlighted with blue ink and surrounded by all the texts that precede and come after the word. From the analysis, some collocates of the verb are

'study shows...', *'the study further showed that...'*, *'the paper has shown that...'*, *'this research has shown that...'* and *'the study has also shown that...'*

In most of the instances, the verb is followed by the nominal *that-clause*. As seen in Extract 4, the clause, *that releasing stress and education were the main reasons why participants watch these voice-over Telenovelas*, which functions as the direct object of the verb *showed* is a nominal *that-clause*. The details of the findings are conveyed by the *that-clause* as illustrated in Extract 4 by the two key findings: the observation that participants watch voice-over telenovelas to release stress and be educated.

Step 2.2: Situating Findings in the Literature

Another realization of the *Making Key Arguments* Move is the sub-rhetorical strategy of situating the findings in the literature. It is worth noting that unlike the first step which was found in all the 20 instances of the move, this step recorded less than 50%. As such, it does not define the move. The purpose of this step is to draw connections between the findings of a study and previous studies. The connection is manifested in two ways – corroborating or contrasting existing literature.

Extract 5 (C4):

...As a result, various demographics can utilize the space to various ends, and there are examples of Africans such as Ghanaians, Kenyans and Nigerians using Facebook, Twitter, and Instagram as spaces for poetic expression as shown by Adenekan (2021), Yékú (2022), and Arenberg (2016) ...

Extract 6 (C15):

...It is worth noting that this finding in respect of characteristics of Eve names slightly contrasts the finding of Aziaku (2016) that most animal names describe appearance, behaviour and habitat of the animals...

Extract 5 shows an instance in Conclusion 4 where an author, after summarizing the findings of the study, draws connections between the findings and previous literature. This is realized linguistically through the citing of sources and expressions that indicate ‘confirmation’ (*there are examples...as shown by*). In Extract 6, the author uses the verb *contrasts* to clearly establish the contradictory relationship between the current finding and that of Aziaku.

Move 3: Making Deductions

This move was identified to be core to the RA Conclusion, with a frequency rate of 65% in all 20 articles. The communicative purpose of this move is to make inferences from the key arguments in a study. *Making Deductions*, thus, logically follows statements of facts or display of information (which characterizes Move 2). Once the researcher states his/her arguments and/or findings, inferences are made from the findings and this may be realized in stating the implications of the findings, and/or making recommendations on the basis of the findings. The move is similar to Yang and Allison’s (2003) *Deductions from Research*. However, while their study identifies *Drawing Pedagogic Implication* as one of two steps, the current study observes that implications are not limited to pedagogy, hence the preference for the more general term *Drawing Implications* which includes pedagogy, theory and policy implications.

Step 3.1: Drawing Implications

Implications are conclusions drawn from a piece of information. In research writing, such conclusions may be drawn towards theory, policy and/or pedagogy. Since research is knowledge production and dissemination, implications from research tend

to influence (uphold, modify or cause a change in) knowledge, teaching and learning, policy making and application of theories. This is instantiated by Extract 7.

Extract 7 (C10):

...This has implications for English language teaching and learning in Ghana, the theory of nativisation and the description of Ghanaian English.

As seen from Extract 7 from C10, in just one sentence, the author has established how the findings will have pedagogical implications for teaching and learning the English language, for “the theory of nativisation”, and for future research on Ghanaian English. This clearly contrasts Yang and Allison’s finding that limits implications to pedagogy. This finding shows that researchers, in drawing implications, may focus on pedagogy, theory, further research and other social implications. One key observation is the use of the noun *implications*. While this easily connotes the implication of the study, some researchers perform the same act using verbs like *contribute* as in “The glocalization of these Telenovelas would also **contribute** to the development of pragmatic knowledge of Akan and the improvement of communicative competence among viewers as they learn the contextual use of certain Akan expressions” (C2) and *engender* as in “...[T]he work engenders a new way of looking at satirical poetry (C4)”. Though variations exist in the linguistic choices, the goal of drawing conclusions and implications from the various studies is realized.

Step 3.2: Recommending Further Research

The study identified *Recommending Further Research* as a sub rhetorical strategy of the third move. In this step, the researcher makes suggestions to the reader as to what can be done differently to yield improved results. This step may directly follow the summary of findings, implications or the research limitations as the researcher recommends how further research can be more effective than the current one.

Extract 8 (C8):

Based on the findings of the study and its limitations, the following recommendations are made for future studies. It is recommended that future studies combine keystroke logging software with think-aloud instruments in non-native contexts so that one would make up for the deficiency in the other...

In this instance, before recommending further research, the researcher makes reference to the findings and limitations. The use of the *ed-participle* clause *Based on the findings of the study and its limitations* is a logical connector that ensures cohesion between the previous discussion (of findings and limitations) and the resulting suggestions. For instance, by looking at the recommendation for further research in C8, one observes that there were deficiencies in the use of one software, hence the recommendation that subsequent studies combine two. Linguistic indicators of this rhetorical strategy, as identified in the data, are *recommend*, *recommendations*,

suggest, lend credence, and pay attention to. The place of recommending further research in RA conclusions confirm the previous findings of Yang and Allison's (2003), Amnuai and Wannaruk (2013) and Alkamillah et al. (2022).

Linguistic realization of the optional move in RA conclusions

Stating Limitations was the only optional move identified in RA conclusions. The purpose of this move is to indicate the challenges that were faced in the research process and how these challenges could affect the outcome of the study. This move was identified to be optional in the selected data as it made just one appearance. Extract 9 details the realization of this move in C8.

Extract 9 (C8):

The study was limited in two ways. Its examination of product-based revision behaviours was largely constrained by the fact that the determinations of these behaviours were limited to the utterances participants made in the think-aloud protocols coupled with the visible changes made on their scripts. As such, formal changes in terms of the insertion of punctuation marks and some instances of capitalisation such as a change from a lower case 'l' to an upper case 'L' could not be detected in some instances...

In C8, the researcher notes the two limitations of the study and explains how they impeded the research process. The expression *the study was limited* points to this rhetorical move. The analysis observed that this move appears between *Making Key Arguments* and *Making Deductions*. That is, after presenting the research findings, the researcher stated the limitations encountered before making deductions.

Conclusion

This study set out to analyze the schematic structure and linguistic realization of rhetorical moves in 20 research article conclusions, using Swales' genre analysis model. The study found one obligatory move (*Making Key Arguments*), two core moves (*Summarizing the Research Process* and *Making Deductions*) and one optional move (*Stating Limitations*), constituting four moves. It was found, however, that none of the RA conclusions in the two Ghanaian humanities journals featured all four rhetorical moves as the study observed one-move, two-move and three-move patterns. The sequencing of the moves was characterized by flexibility and recurrence of moves. The study also analyzed the linguistic realization of the moves in the 20 RA conclusions. The findings show how the communicative purpose of each move influences the linguistic choices in each move. The use of to-infinitive clauses characterized *stating purpose* in Move 1. The four parts of the purpose statement's rhetorical features were: *type of research, central phenomenon, data and research context or site*. In *Making Key Arguments* Move, summarizing findings was characterized by the predominant use of the forms of the verb *show* and *nominal-that clause* functioning as direct object, as revealed by the Concordance analysis in AntConc (Fig 1).

The study has implications for theory and pedagogy. Insights on the generic features of the RA conclusion have implications for developing theories for analyzing genres from different disciplines and contexts. Similarly, the findings have implications for practice and the teaching of academic writing to postgraduate students. While this study focused on 20 research articles from two Ghanaian journals in the humanities, other studies can draw comparisons across disciplines to establish disciplinary variations.

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