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## Form and rhetorical function of phrase-frames in promotional writing: A corpus- and genre-based analysis



I. Elliott Casal <sup>a, \*</sup>, Matt Kessler <sup>b</sup>

- <sup>a</sup> Department of Cognitive Science, Case Western Reserve University, United States
- <sup>b</sup> Department of World Languages, University of South Florida, United States

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#### ABSTRACT

A recent trend in corpus-based text analysis emphasizes the recurring linguistic features which writers use in the construction of disciplinary genres in terms of the rhetorical aims realized through their use, with a particular emphasis on formulaic sequences and genres associated with the production and dissemination of academic knowledge. The present study extends this trend into research on an understudied promotional genre by examining the distribution of frequent phrase-frames (p-frames) across the rhetorical stages of 148 purpose statements in accepted Fulbright grant applications. P-frames were automatically identified according to a number of established thresholds and manually filtered for completeness. Each occurrence of the 69 identified p-frames was analyzed in context to assign one of four rhetorical move codes based on previous research. In addition, experienced ESL writing instructors (N = 10) and advanced ESL learners (N = 10) were surveyed regarding their perceptions of the pedagogical potential of each p-frame for the teaching of promotional genres. The distribution of these p-frames across the rhetorical stages of the analyzed texts, as well as the learner and instructor ratings, are analyzed and presented here. Overall findings highlight the potential pedagogical value of teaching discontinuous formulaic sequences due to their composition of both fixed and variable elements.

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#### 1. Introduction

A recent trend in corpus-based text analysis and genre studies analyzes the recurring linguistic features of disciplinary genres in tandem with the rhetorical features of such texts. So far these studies have placed a primary focus on the role of formulaic sequences (e.g., lexical bundles, phrase-frames) in the rhetorical construction of academic genres including published research article part-genres (e.g., Cortes, 2013; Le & Harrington, 2015) and accepted research article or conference abstracts (e.g., Omidian, Shahriari, & Siyanova-Chanturia, 2018; Yoon & Casal, 2020). This research reflects the importance of exploring "functional patterns and constructions of different academic genres" (O'Donnell, Rö;mer, & Ellis, 2013, p. 84) in English for Academic Purposes (EAP) scholarship, providing insights into formulaic patterning in discourse. Such an emphasis is at least in part motivated by the role of emergent, grammatically-open, and function-specific constructions in Usage-Based approaches to SLA (Ellis & Cadierno, 2009; Tomasello, 2003) and genre theorists' understanding that genre competence entails knowledge and mastery of at least formal and rhetorical domains of genre practices (e.g., Tardy, 2009).

<sup>\*</sup> Corresponding author. 617C Crawford Hall, 10900 Euclid Ave, Cleveland, OH, 44106, United States. E-mail addresses: jelliottcasal@gmail.com, jec203@case.edu (J.E. Casal), mattjkess@gmail.com (M. Kessler).

This line of research has been both theoretically and pedagogically fruitful, but the corpus-based genre analysis studies listed above have, as previously mentioned, primarily emphasized academic genres associated with knowledge construction and dissemination (i.e., mainly research articles and conference abstracts). The current study contributes to this growing research tradition by applying a similar analytical lens to two closely-related promotional text types that form part of Fulbright grant applications: a personal statement and a statement of grant purpose. In the study, we analyze the role and structure of formulaic phrase frames in the construction of these texts, the distribution of salient phrase frames across the rhetorical stages, and the extent to which second language (L2) writing teachers rate these patterns as pedagogically useful in the teaching of other promotional genres.

#### 2. Literature review

#### 2.1. Promotional genres

Building on the pioneering rhetorical work of Swales (1990), researchers have analyzed the rhetorical practices of writers across numerous academic disciplinary genres and within various professional genres (e.g., Bhatia, 1993; Chiu, 2016; Connor & Mauranen, 1999; Kuteeva & McGrath, 2013; Nathan, 2013; Peacock, 2002; Wang & Bai, 2007). These studies have deepened our understanding of genre practices of a diverse range of discourse communities. Most often this work has been conducted within the English for Specific/Academic purposes traditions with the explicit intent of helping novices to participate in new or unfamiliar genres (Tardy, 2016)—yet, one particular area that has received relatively little attention is that of *promotional genres*. Promotional genres, first explored by Bhatia (1993), include text types such as sales letters, job/cover letters, academic and/or professional grant applications, personal statements, conference abstracts, and more. In these promotional genres, rhetorically speaking, writers often must attempt to sell (a) something such as a product or idea, or (b) different aspects of themselves to the reader, typically in exchange for some future benefit such as securing a job, securing a grant, or being admitted into an academic program/conference, etc.

While aspects of academic conference abstracts have been examined by applied linguists (e.g., Halleck & Connor, 2006; Samar, Talebzadeh, Kiany, & Akbari, 2014; Yoon & Casal, 2020), other promotional genres have tended to remain largely underexplored. Despite this, recently, there has been growing interest in examining writers' personal statements (PSs) submitted for various academic programs and grants (e.g., Brown, 2004; Chiu, 2016; Ding, 2007; Li & Deng, 2019; López-Ferrero & Bach, 2016; Samraj & Monk, 2008). PSs have been of particular interest due to their occluded nature (Swales, 1996) in the sense that PSs are typically non-public or private, and often writers neither have exposure to nor experience with composing them. Of the few studies that have explored writers' PSs, most have adopted a Swalesian genre analysis approach (e.g., Brown, 2004; Ding, 2007; López-Ferrero & Bach, 2016; Samraj & Monk, 2008). Such studies have examined the rhetorical moves in PSs submitted to doctoral programs in clinical psychology (e.g., Brown, 2004), in education-related fields (e.g., Chiu, 2016; López-Ferrero & Bach, 2016), for medical and dental schools (e.g., Ding, 2007), and for other graduate programs within linguistics, engineering, and business (e.g., Samraj & Monk, 2008). In these studies, despite a variation in the total number of moves uncovered ranging from three (in Brown, 2008) to as many as 10 (in López-Ferrero & Bach, 2016), researchers have found much of the same overlapping rhetoric across writers' PSs. For instance, Samraj and Monk (2008) discovered that graduate school applicants often used five rhetorical moves, including: [providing an] introduction, background, reasons for applying, [explaining] extra-curricular activities, and a conclusion. In other studies, such as Ding (2007) and López-Ferrero and Bach (2016), the researchers also have highlighted applicants' uses of the reasons for applying move and of the introduction and conclusion moves, among others. Though intended for different programs and/or grant purposes, such a consistent use of rhetoric by writers across PSs highlights the benefits of adopting a genre analysis approach for identifying common rhetoric that may be of pedagogical utility for future L1 and L2 writers in occluded genres.

However, one important note is that these prior studies that have explored the rhetoric of PSs typically have limited their analyses to the rhetorical moves themselves, and while the researchers rely on linguistic cues to the rhetorical aims of writers, these studies have not included fine-grained analyses of the language that constitutes those rhetorical moves. Of all the aforementioned studies, only López-Ferrero and Bach (2016) explored language-specific features within the rhetorical moves they discovered, as the authors examined PS writers' use of *stance* and *engagement* (from Hyland, 2005) within the recurring rhetorical moves.

#### 2.2. Corpus-based genre analysis

In the broader genre analysis tradition there is a trend toward the integration of corpus-based analysis of linguistic features with discourse-based analysis of rhetorical features in a given genre practice. This work furthers what Moreno and Swales (2018) identify as one of the major aims of move analysis, "the identification of the linguistic features characterizing the various research article rhetorical moves," which they refer to as the "function-form gap" (p. 41). While efforts to address this gap are not new, studies which systematically integrate corpus linguistic approaches to analysis of linguistic features with move-based rhetorical analysis are currently prevalent.

The most commonly adopted linguistic features in this line of inquiry to date have been formulaic phraseological features (e.g., Cortes, 2013; Durrant & Mathews-Aydınlı, 2011; Le & Harrington, 2015; Omidian et al., 2018; Yoon & Casal, 2020), but some have also analyzed lexicogrammatical and syntactic features (e.g., Gray, Cotos, & Smith, 2020; Lu, Casal, & Liu, 2020).

Gray et al. provide a methodologically oriented discussion of a multi-dimensional analysis of linguistic variation across rhetorical moves and steps in research articles of 30 disciplines, and Lu et al. utilized five measures of syntactic complexity and corpus-internal complexity thresholds to analyze variability in the production of complex structures across rhetorical moves of 600 research articles from six social science disciplines.

From a phraseological perspective and in a step forward for corpus-based genre analysis, Cortes (2013) examined the relationship between frequent lexical bundles in a corpus of 1300 introductions from published research articles in 13 disciplines and the writers' rhetorical goals. She found a strong association between many lexical bundles and particular rhetorical aims, with many lexical bundles serving as reliable cues of rhetorical shift. Similarly, Le and Harrington (2015) analyzed the use of three-to-five-word continuous formulaic sequences (or 'clusters') oriented around 14 'key' nouns and verbs in the rhetorical construction of Applied Linguistics research article discussion sections. The authors also reported strong relationships between formulaic phraseological features and the rhetorical aims of writers, and a closer analysis provided insights into the nature of these relationships. For example, they note that clusters oriented around nouns such as 'findings' and 'results' and containing verbs such as 'suggest' were frequently used when interpreting results in order to "obscure their agency and authorial responsibility in order to distance themselves personally from the results" (p. 51). Durrant and Mathews-Aydınlı (2011) adopted a more function-oriented approach, featuring the formulaic sequences that writers of master's student essays and published research articles in social sciences used in text that described the paper structure. They also found strong associations between particular formulaic features and the rhetorical aims of writers. They tracked these relationships across disciplinary boundaries and noted disciplinary variation in form-function mappings, observing that student writers used a less specialized set of formulaic features (i.e., a wider variety overall) than research article writers.

Both Omidian et al. (2018) and Yoon and Casal (2020) analyzed the relationships between formulaic sequences and rhetorical stages in abstracts, with Omidian et al. adopting a lexical bundle approach (continuous multiword sequences; e.g., the aim of this study) in research article abstracts and Yoon and Casal focusing on phrase frames (i.e., discontinuous multiword sequences with a variable slot; e.g., the \* of this study, [aim, purpose, goal]) in conference abstracts. Omidian et al. examined the use of lexical bundles in the rhetorical construction of 6000 abstracts from six disciplines, and while they also found strong evidence of disciplinary variation, they also explored the extent to which the linguistic and rhetorical differences across disciplinary writing reflected disciplinary priorities in promoting and disseminating their research. Yoon and Casal focused on the strength of the relationship between phrase frames and writers' rhetorical aims in Applied Linguistics conference abstracts. Of the 145 five- and six-word phrase-frames they identified in their analysis of 625 conference abstracts, 52 (over 35%) occurred in the realization of a single rhetorical move, while others appeared to be more rhetorically multi-functional.

Overall, this research provides insights into the role of formulaic language in academic disciplinary genre practices, highlighting the overall prevalence of formulaic sequences in such texts, the strong relationship that particular formulaic resources show with particular rhetorical goals, and that writers vary their linguistic decisions at phraseological levels depending on their rhetorical aims. From a pedagogical perspective, these studies have also yielded useful resources for educators in the form of genre-specific phraseological construction-rhetorical function mappings that can be used in pedagogical activities. Others have implemented corpus-based genre analysis as pedagogical activities themselves in order to explore their potential for writing instruction or instructional support (e.g., Charles, 2011; Dong & Lu, 2020; Mizumoto, Hamatani, & Imao, 2017).

Much of this research has targeted genres involved in the construction and dissemination of academic disciplinary knowledge (i.e., research articles and conference abstracts), but, as previously discussed, promotional genres beyond conference documents have been scantly researched and particularly from an integrated corpus and genre analysis based approach. This gap therefore represents an important scholarly and pedagogical opportunity for text analysis, as promotional genres such as grant applications and statements of purpose are seldom taught explicitly (much to the dismay of the proposal reviewers and helpful advisors who read them).

Further, while the recurring emphasis on lexical bundles as the linguistic feature of focus in previous research has yielded pedagogically useful resources and uncovered new insights into disciplinary genre practices, discontinuous multiword sequences such as phrase frames are perhaps more pedagogically useful in that they are simultaneously composed of both conventional and variable elements. Though the term *lexical bundle* refers to a fixed, recurring contiguous sequence of words (e.g. *little attention has been paid to*, 6-word lexical bundle), phrase frames (hereafter *p-frames*) are fixed, recurring sequences of words with a variable slot that is filled by semantically coherent variants (e.g., \* *attention has been paid to*, [*little, scant, less, no*]). In this way, p-frames are considered noncontiguous and include both variable and fixed elements. Yoon and Casal (2020) argue that the structural fixedness and variability of p-frames means that "a frame-based approach to teaching academic genres may allow teachers to illustrate choices available to writers within the constraints of expectations" (p. 297).

#### 2.3. The current study and research questions (RQs)

Therefore, the current study is a corpus-based genre analysis of the PSs and statements of grant purpose (SoGP) promotional text types, as we analyze 148 Fulbright grant application documents from an integrated phraseological and rhetorical move perspective. By addressing the following research questions, we aim to identify the frequent noncontiguous formulaic sequences (in this study, five-word p-frames) in the corpus and to examine the distribution of these linguistic features across the rhetorical stages of the included texts. In addition, following recent trends in the selection of pedagogic

linguistic resources (e.g., He & Godfroid, 2019; Lu, Yoon, & Kisselev, 2018), we consider the extent to which L2 English writing instructors and L2 English writing students perceive these linguistic features to be pedagogically valuable for the teaching and learning of related promotional genres beyond the specific texts of focus.

RQ1: What are the frequent p-frames that occur in the PS/SoGP corpus?

RQ2: What is the distribution of these p-frames across the rhetorical stages of the examined promotional writing?

RQ3: To what extent do instructors and L2 English learners rate these p-frames in terms of their pedagogical usefulness for teaching and/or learning promotional writing?

#### 3. Method

#### 3.1. Corpus description

The current corpus is comprised of successful statements submitted by applicants to the U.S. Fulbright English Teaching Assistantship (ETA) program from 2012 to 2016. Fulbright itself is an established grants program funded by the U.S. Department of State, and each year approximately 5000 individuals submit applications to Fulbright's ETA program (J. Dudderar, personal communication, October 4, 2017). Prospective ETAs apply to (potentially) receive grants to serve as English-as-a-foreign-language (EFL) teachers in numerous countries throughout the world. ETA grants are competitive, with approximately only 20% of applicants awarded grants annually. When applying for an ETA, applicants must submit two written documents as part of their application: a personal statement (PS) and a statement of grant purpose (SoGP), which consist of distinct prompts. For instance, in the PS, writers are asked to describe themselves on a "personal level," as well as to articulate their motivations and future goals. In the SoGP, writers must describe their qualifications, why they are interested in the target host country, and how they intend to benefit students of that country.

The corpus was compiled as part of a larger research effort to analyze the linguistic and rhetorical patterns of successful ETA submissions (see Kessler, 2020). Despite the slightly different foci, both the PS and the SoGP are promotional in nature, and rhetorical analysis identified extremely cohesive rhetorical structures across the two documents. In the present study, at all stages of the analysis the researchers performed cross text-type comparisons and no meaningful differences were found in the frequency of frames overall, the frequency of identified frames above the thresholds, the linguistic fixedness of frames, or the distribution of frames across rhetorical stages (with the exception that Move 4 only occurred in one of the two text types, as discussed below). Additionally, all ETA applicants are required to adhere to a 1-page, single-spaced guideline for each document. For these reasons, the two documents were treated as closely related promotional texts.

To collect previous Fulbright ETA applicants' PSs and SoGPs, the second author identified former successful applicants (i.e., those who were awarded grants) between 2012 and 2016 using the online Fulbright U.S. Student Program's Grantee Directory. These grantees were contacted via email and professional social networking websites to invite them to submit their PSs and SoGPs for research purposes. In total, 74 ETA recipients contributed their PSs and SoGPs. Thus, the current corpus consists of 148 total successful statements (n = 74 PSs, n = 74 SoGPs) and 94,749 words. The average PS length was 644.51 words (SD = 60.41), and the average SoGP length was 635.87 (SD = 62.97).

Typical applicants for Fulbright's ETA program are graduating U.S.-based college seniors. Fulbright requires all ETAs to be U.S. citizens in order to receive a grant, yet despite this, the grantees themselves are highly multilingual. For instance, in the corpus, nearly all individuals were multilingual; additionally, nearly 20% self-identified as non-L1 English speakers, with additional L1s consisting of: Chinese, Flemish, French, German, Hindi, Spanish, Thai, and Ukrainian. Those 74 individuals who contributed their statements to the corpus received grants to teach EFL in 26 countries, including: Argentina (2), Armenia (1), Brazil (9), Bulgaria (1), Colombia (5), Czech Republic (1), Ecuador (1), Germany (9), Greece (1), Indonesia (1), Jordan (1), Kazakhstan (1), Kosovo (1), Laos (1), Malaysia (10), Mexico (3), Peru (1), Poland (1), Russia (1), Serbia (2), South Africa (1), South Korea (6), Spain (4), Taiwan (3), Thailand (4), and Turkey (3). The statements included in the corpus were sampled for breadth (i.e., statements were accepted from multiple countries) rather than sampled for depth (i.e., only one country).

#### 3.2. Rhetorical move framework

Römer's (2010) Phraseological Profile model highlights the importance of analyzing the functions of phraseological features, and in the present study 'function' was operationalized as rhetorical moves (Swales, 1990, 2004). As the current study is part of a larger corpus-based genre analysis project of Fulbright ETA statements, a fine-grained rhetorical analysis falls outside of the scope of the current paper (for this, see Kessler, 2020), but analytical and annotation procedures are discussed in this subsection. The rhetorical move framework was constructed through an iterative analytical process by the second researcher on a subset of the texts (n = 50). The process involved consideration of rhetorical cues including lexical, phraseological, and structural indicators of rhetorical intent and shift. To develop the move-step codes, the second author first read through 20 statements of each type, engaging in a round of open coding. In the second round, those codes were then examined, grouped,

<sup>&</sup>lt;sup>1</sup> To learn more about the specific guidelines for the Fulbright ETA program, please visit: https://us.fulbrightonline.org/applicants/application-tips/eta.

<sup>&</sup>lt;sup>2</sup> To view the directory, please visit: https://us.fulbrightonline.org/component/filter/?view=filter.

and refined. Following the codes' development, intercoder reliability was examined in which an additional coder applied the codes to 10% of the dataset, ultimately obtaining a total reliability of 0.88 (0.87 for PSs and 0.89 for SoGPs).

The resulting framework includes four recurring rhetorical moves that writers utilized in their PSs: (1) competence claims, (2) motivation for pursuing ETA grant, (3) motivation for applying to target country, and (4) framing childhood and family history. Interestingly, in the applicants' SoGPs, most writers constructed rhetorically similar texts, again using three of the moves from the PS framework (Moves 1, 2, and 3) with only the fourth move of framing childhood and family history being unique to the PS. In spite of the differences in prompts, the texts were rhetorically similar. Table 1 briefly presents these four rhetorical moves, including examples extracted from writers' texts. The rhetorical context of identified phrase-frames was annotated following the procedures discussed below.

#### 3.3. P-frame analysis

The tool kfNgram (Fletcher, 2012) was used for automatic identification of five-word p-frames that occurred in a minimum of five different texts. In previous research, frequency thresholds range widely, and since a range requirement of five distinct texts was adopted following previous practices (e.g., Gray & Biber, 2013), a raw frequency of five already represents a conservative inclusion threshold. Following Lu et al.'s (2018) observation that 4-word frames are often less linguistically cohesive and complete, five- and six-word frames were selected for analysis. However, the corpus yielded a small number of six-word frames, with all of these frames contained within identified five-word frames. Following Yoon and Casal's (2020) argument that "there exist a small but productive number of potentially useful p-frames that meet all thresholding considerations but have initial or final slots and cannot be subsumed into larger frames," (p. 288) p-frames with variable slots in the initial or final position were included, as long as they were deemed to meet all the cleaning and checking protocols outlined below.

The kfNgram produced p-frame list was then processed for analysis through a lengthy, collaborative, manual cleaning and checking process that involved both researchers. All p-frames that were identified as linguistically incomplete (e.g., my interest in \* and, [politics, Spanish, nutrition, education, language]), that crossed clausal boundaries (e.g., \* so that I can, [grasp, system, skills, classes]), or that were not sufficiently coherent semantically (e.g., to \* as an English, [serve, others, communicate]) were excluded. This cleaning process was conducted by each researcher independently through manual examination of p-frame occurrences and variants in context via AntConc (Anthony, 2019), and a final list of 69 five-word p-frames was constructed through comparison and dialogue. Throughout the study, excel was used to organize the p-frames and related information regarding variants and associated rhetorical functions.

The researchers used the final p-frame list, the rhetorical move framework discussed above, and AntConc to examine the local and discursive context of each instance of each frame, assigning an in-text code from a customized tagset to identify the rhetorical function assigned to the linguistic chunk containing the formulaic sequence. This process began with the second researcher training the first researcher on use of the Fulbright move framework for rhetorical move annotation of the dataset due to the second researcher's familiarity with the data and framework. After training, the researchers independently coded 10% of the p-frame instances with a 94.33% agreement level. Each of the two researchers then completed annotation of the remaining data independently, assigning code annotations with each p-frame instance. Annotations were then compared, and differences were collaboratively reconciled.

The researchers created a simple tagset for annotation that placed codes within brackets at move boundaries (i.e, []), as these brackets were not found elsewhere in the dataset. AntConc was then used to search for each instance of each p-frame and tally the rhetorical functions to investigate the rhetorical distribution. Following Yoon and Casal (2020), the association of

**Table 1**Rhetorical moves from writers' statements.

Rhetorical move	Brief explanation of move	Examples from participants' (P#) statements	Writers (%) using move
(1) Competence	All 50 writers made various competence claims in an effort to	[A]s an exchange student at the University XXX in Glasgow	100% –
claims	highlight their qualifications and readiness to serve out an	[I] rediscovered my independence and ability to thrive in	PS
	ETA grant. The example from P#8 highlights this by	new environments. (P#8)	100% —
	describing an ability to succeed in a foreign environment.		SoGP
(2) Motivation for	This was the second most used move, as writers discussed	I would like to study Taiwan's language policy and practices	
pursuing ETA	how a grant supported either the students of the target	to support my future studies in Applied Linguistics (P#2)	
grant	country, or as the example by P#2 shows, how receiving a		SoGP
	grant supported one's own future career goals.		
` '	Over 60% of writers in each statement discussed why a	I earned a combination of four scholarships to fund an	66% – PS
applying to	particular country was of interest to them. P#15, for	intensive Portuguese language and Brazilian culture program	
target country	example, discussed this in reference to how previous travel	•	SoGP
	had inspired him to return to the country.	(P#15)	
(4) Framing	In the last move (specific to the PS), writers like P#19	I never cared for Risk. As an only child attending elementary	
childhood and		school and living in suburban Chicago, I grew fond of things	
family history	families had influenced them, typically to provide insights into their personalities.	that I could do quietly by myself. (P#19)	SoGP

each frame with each rhetorical function was calculated simply as the number of times a p-frame occurred with a given function divided by the number of times the p-frame occurred overall, and the rhetorical function with the highest association value was deemed the 'primary function.' In the relatively few instances in which a p-frame had equal association with two rhetorical functions (e.g., 40% of all occurrences with each of two and the remaining 20% of occurrences with another), those two rhetorical functions were tallied as 'co-primary functions.'

#### 3.4. Learner and teacher survey

As a final analytical procedure and based on prior investigative precedent (e.g., Ackerman & Chen, 2013; He & Godfroid, 2019; Lu et al., 2018), 10 experienced EAP writing instructors were surveyed regarding their perceptions of the potential pedagogical value of each of the 69 identified p-frames in the teaching of other promotional genres (i.e., 'usefulness'). In addition to the instructors, 10 L2 English graduate students with advanced proficiency rated each p-frame for its usefulness in writing similar genres. Participants were asked to rate each identified p-frame on a four-point Likert scale as follows: 1 – no pattern, not useful; 2 – pattern is recognizable, but not useful; 3 – pattern is recognizable, somewhat useful; 4 – pattern is recognizable and very useful. 'Useful' was presented to instructor participants as the potential value of each individual frame for the teaching of other similar promotional genres to L2 English writers, and it was presented to learners as the potential value for their own use in writing other promotional genres, with more personally oriented cover letters and statements of purpose provided as examples. Emphasis was placed on transferability to broader promotional genre families to provide insights into the potential value of teaching phrase frames as part of the social action of genre practices rather than a specific feature of Fulbright ETA grants. Ackerman and Chen (2013) and Lu et al. (2018) used similar ratings as a means of filtering their final construction lists, and He and Godfroid (2019) similarly adopted instructor ratings in their approach to selecting linguistic resources for teaching; in the current study, instructor and learner ratings themselves were the subject of investigation for the third research question and will be discussed in more depth below.

#### 4. Results

The p-frame analysis identified a final list of 69 five-word p-frames (types) that occurred a total of 562 times (tokens) across the 148 texts and 94,749 words. This is a rate of roughly 3.8 uses of an identified p-frame per text. To address the first research question, a complete list of p-frames which met the thresholding requirements for frequency and distribution is provided in the Appendix, along with the corresponding variants, rhetorical move distribution, and teacher/student ratings.

#### 4.1. Rhetorical distribution of p-frames

To address the second research question, the distribution of p-frames across rhetorical moves of the PSs/SoGPs was assessed and is presented in Table 2. Each p-frame's primary function was determined by tallying the number of times each p-frame occurred in text advancing each rhetorical move, and the strength of these associations was calculated by dividing the number of instances a p-frame occurred with a move by the number of times the p-frame occurred overall. Move 2 (*motivation for pursuing ETA* grant), demonstrated the strongest association with the identified phraseological features, as 58 of the 69 identified p-frames occurred at least once in text which advanced Move 2 (84.1%); 34 p-frames had the strongest association with Move 2 (49.3%; five of these p-frames had a co-primary function); and eight of the p-frames were used exclusively with Move 2 (11.6%). Move 1 (*competence claims*) and Move 3 (*motivation for applying to target country*), respectively, demonstrated similar patterns in their relationships with the identified p-frames, with Move 4 (*framing childhood and family history*) exhibiting the weakest overall association with p-frames.

In Tables 3 and 4, we provide a closer examination of the distribution of p-frames across rhetorical frames and the role of p-frames in the realization of writers' rhetorical goals. Table 3 provides examples of the p-frames with the strongest association with each rhetorical goal (two examples of one p-frame for each move). As can be seen across Tables 2 and 3, many frames exhibited one-to-one relationships with individual rhetorical aims or otherwise strong associations, and further examination

**Table 2** P-frame types, tokens, primary associations, and 'monofunctional' counts by rhetorical move.

Move/Step	P-frame Types	P-frame Tokens	Primary Function*	Mono- Functional				
Move 1 – Competence Claims								
	43	158	19	5				
Move 2 – Motivatio	on for Pursuing ETA Grant							
	58	256	34	8				
Move 3 – Motivatio	on for Applying to Target Country							
	43	115	16	0				
Move 4 – Framing	Childhood and Family History							
	21	39	5	0				

Note: For 'Primary Function' column, if the p-frame's highest association value was equal for two moves (e.g., 2/5 occurrences with 2 separate moves), that p-frame is listed twice. This was the case with five p-frames, all of them associated with Move 2.

**Table 3**Examples of rhetorical moves with strongly associated P-Frames.

Rhetorical move	P- Frame	Variants	Strength	Examples of P-Frames in Context
Move 1 — Competence Claims	I was able to *	see, spend, participate, hike, reinforce, start, watch, work, study, visit, give, observe, connect, experience, attend, break, gain, maintain, merge	1.00	<ul> <li>Finally, in college <u>I was able to study</u> Chinese. (P#2, PS)</li> <li>During the fall of my junior year, <u>I was able to spend</u> a semester studying in Vienna. (P#11, SoGP)</li> </ul>
Move 2 — Motivation for Pursuing ETA Grant	I want to help *	students, others, people, create, eliminate	1.00	I want to help students gain a better understanding of how a native English speaker thinks by transmitting some of my culture and worldview. (P#5, SoGP)     Iwant to help people discover and learn who they are as I integrate personal growth into the curriculum. (P#61, PS)
Move 3 — Motivation for Applying to Target Country	* prepare me for a	will, help, better, directly	0.83	<ul> <li>Receiving a grant will allow me to become more internationally engaged and better prepare me for a career in foreign relations. (P#4, SoGP)</li> <li>The skills and experience I will gain as an ETA in Brazil will directly prepare me for a career in teaching English (P#20, PS)</li> </ul>
<b>Move 4</b> – Framing Childhood and Family History	I was * by the	intrigued, struck, frustrated, amazed, captivated	0.71	While working long hours as a photographer I was frustrated by the materialism my job promoted and longed for deeper meaning in my life. (P#55, PS)     I was struck by the great difference between kids who had been learning English privately and those who had been taught in state schools. (P#74, PS)

of such formulaic language in context highlights its rhetorical potential. For example, the p-frame '*I* was able to \*' exhibits a one-to-one relationship with Move 1 (*competence claims*). This frame is rather transparent rhetorically, as 'be able to' has a clear semantic connection to 'competence,' and close examination of the numerous variants in context highlights a strong tendency towards using this p-frame to reinforce claims of cultural and linguistic competence in particular. The p-frame '*I* was \* by the' is markedly less rhetorically transparent and exhibits a strong relationship with Move 4 (*framing childhood and family history*). The variants (i.e., *intrigued*, *struck*, *frustrated*, *amazed*, *captivated*) and examination of this p-frame in context highlight the usefulness of this formulaic sequence for discussing the impacts of previous events and experiences on writers' current capacities and perspectives, thus allowing them to construct an identity.

However, in other instances, p-frames were multifunctional in the sense that the p-frame itself was used to accomplish two or three of the writers' rhetorical aims, with cohesive sets of overlapping variants associated with distinct rhetorical actions. Table 4 highlights one such instance of a multifunctional p-frame that the writers employed to establish both their motivation for pursuing an ETA grant overall (Move 2) and their motivation for applying to their identified target country (Move 3). Broadly, the form is rhetorically transparent in its association with positivity and motivation.

#### 4.2. Teacher and student 'usefulness' ratings

To address the final research question, experienced EAP writing instructors (N=10) and L2 English graduate students (N=10) rated each of the 69 identified p-frames on a four-point Likert scale ranging from 1 (no pattern, not useful) to 4 (pattern is recognizable and very useful), where 'useful' refers to the perceived value of the p-frame for teaching or learning promotional genres. The teacher and student ratings were notably high overall exhibiting a moderate correlation (0.78), with the overall average rating from instructors at 3.06 and the overall average rating from students at 3.24. In previous studies (e.g., Ackerman & Chen, 2013; Lu et al., 2018), an average rating threshold of 2.5 was adopted as an inclusion cut-off, and only six of the total 69 p-frames fell below that threshold in the present study (a\*of the world -2.55; me the importance of \*-2.5; in the \*of education -2.45; \*of the English language -2.35; in high school I\*-2.3; \*to immerse myself in -1.95), with only the final of these frames receiving below a 2.5 from student raters. Instructors and learners were invited to leave comments to explain their ratings, and many chose to do so, with 12 of 20 raters leaving comments on at least five p-frames and several choosing to leave comments on at least half of all frames.

Examination of the highest and lowest rated frames in conjunction with a review of the explanatory comments left by instructors and students provides useful insights into the perceived value of these formulaic sequences for the teaching and learning of promotional writing. As can be seen in Table 5, six of the highest rated p-frames by instructors and learners overlap. Recurring themes in the instructor comments highlight the importance of perceived transferability (i.e., generally useful) and rhetorical or functional potential. Many instructor comments for highly rated frames explicitly identified the rhetorical function which they thought a p-frame may be associated with (e.g., I was able to \* — "Helpful in retelling events"; I hope to \* my — "Useful for discussing possibilities in the future"). Student explanations for positive evaluations either

**Table 4**Example of a multifunctional P-Frame in context.

P-Frame	Variants	Corresponding rhetorical moves	Strength E	example of P-Frame in Context
U	explore, engage, share, work, tinker, join, incorporate	Move 2 — Motivation for Pursuing ETA Grant		Additionally, I am eager to incorporate activities tailored to students' interests and methods of learning. (P#15, SoGP)  As a lifelong dancer, I am eager to engage my local community through an informal dance exchange. (P#44, SoGP)
	explore, engage, see, learn, get, experience, have, immerse	Move 3 — Motivation for Applying to Target Country		<u>I am eager to explore</u> Malaysian agriculture as well as the rich (and tasty) ethnic and social heritage the nation's cooking serves up. (P#32, SoGP) <u>I am eager to immerse</u> myself in the education system of South Korea and engage in the local lifestyle. (P#40, PS)

**Table 5** Fifteen highest rated P-Frames by teachers and students.

Code	Teacher Top Frames	Avg.	Code	Student Top Frames	Avg.
Α	gain a * understanding of	3.9		i would be * to	3.8
	a * understanding of the	3.8	E	to be able to *	3.8
	i would like to *	3.6		the opportunity to $*$ a	3.8
	will be able to *	3.6		i am eager to *	3.7
В	i am interested in *	3.6	D	had the opportunity to *	3.7
	i hope to * with	3.6	F	i look forward to *	3.7
C	* me the opportunity to	3.6		i want to * a	3.7
	i was * by the	3.6		i plan to * my	3.7
	i was able to *	3.5	В	i am interested in *	3.6
D	had the opportunity to *	3.5		will allow me to *	3.6
E	to be able to *	3.5		one of the most *	3.6
	the opportunity to * with	3.5		my goal is to *	3.6
	i would * the opportunity	3.5	С	* me the opportunity to	3.6
	i have come to *	3.4		i hope to * a	3.6
F	i look forward to *	3.4	Α	gain a * understanding of	3.6

**Table 6**Fifteen lowest rated P-Frames by teachers and students.

Code	Teacher Low Frames	Avg.	Code	Student Low Frames	Avg.
Α	the * of my life	2.7		* me to apply for	2.8
В	to * my love of	2.7	F	as a * I have	2.8
	i * to use my	2.7		taught me the * of	2.8
C	to * a part of	2.7	Α	the * of my life	2.8
D	serve as a * for	2.6	D	serve as a * for	2.8
	me the opportunity to *	2.5	G	a * of the world	2.7
E	i will use my *	2.5		immerse myself in the *	2.7
F	as a * I have	2.5	В	to * my love of	2.7
	me the chance to *	2.5	K	in high school i *	2.6
G	a * of the world	2.4	E	i will use my *	2.6
Н	me the importance of *	2.4	I	in the * of education	2.6
I	in the * of education	2.3	С	to * a part of	2.6
J	* of the english language	2.2	Н	me the importance of *	2.6
K	in high school i *	2.0	J	* of the english language	2.5
L	* to immerse myself in	1.6	Ĺ	* to immerse myself in	2.3

highlighted validation of their own use of a particular p-frame (e.g., as a \* I have — "I use it all the time") to general statements of positivity (e.g., "good stuff"). Common to both populations was the belief that such frames could help writers engage in self-promotion generally.

While Table 5 highlights the highest rated p-frames, conversely, Table 6 illustrates the ratings for the least 'useful' p-frames. Notably, there was more agreement between learners and instructors regarding this list, with 12 of the lowest rated 15 p-frames overlapping. Both instructors and learners had markedly more to say about the p-frames which they rated lowly. Instructors rated frames lowly if they perceived them to be infrequent, if they perceived an imbalance in the variants, or if they considered them to be too genre specific and therefore not particularly transferable, and therefore 'unuseful' other than

in the teaching or writing of Fulbright ETA application materials. Instructor intuitions regarding frequency and the weight of variants were similar to our findings. Student explanations for low ratings also referenced transferability (e.g., "I cannot imagine how this p-frame can be used flexibly in various types of sentences"), perceived frequency, and even formality, although sometimes formality was considered to be a negative characteristic that did not impact perceived usability and usefulness (e.g., taught me the \* of - "super formal and pompous, could be useful though"). Structurally, it is noteworthy that a large portion of the top-rated p-frames by both instructors and learners contained variable slots in either the penultimate or final position (10/15 instructor ratings and 13/15 learner ratings), while approximately half of the lowest rated p-frames had variable slots in either the initial or second position (7/15 instructor and learner ratings).

#### 5. Discussion and conclusions

In this study, we aimed both to contribute to the currently limited extant scholarship on promotional academic grant writing and extend the growing trend of corpus-based genre-analysis beyond academic genres related to the dissemination and production of disciplinary knowledge. In doing so, we have highlighted that phraseological features (here 5-word p-frames) play a prominent role in the linguistic realization of writers' rhetorical goals in terms of their prevalence (69 p-frame types and 562 tokens across 148 texts) and the strong associations between individual formulaic features and particular rhetorical goals. The vast majority of identified p-frames exhibited a strong relationship with a particular rhetorical move, with M2 (motivation for pursuing ETA grant) associated with 34/69 p-frames (eight of them exclusively appeared in M2). Close examination of the p-frames in context provides important insights into the rhetorical practices of grant writers in their PSs/SoGPs.

This study is novel both in its analysis of linguistic features in terms of writers' rhetorical goals and in the examination of discontinuous, rather than continuous, formulaic sequences. As previously discussed, p-frames are composed of both formulaic and variable parts, capturing the ways that writers use recurring linguistic features cohesively in function-specific constructions. As such, we argue that the p-frames have a noteworthy pedagogical potential to develop learner awareness and repertoires in terms of both convention and creativity in formal writing. Importantly, p-frames can be used to teach the underlying rhetorical work that characterizes promotional academic writing, as examination of the semantic cohesion of variants and the formulaic sequences in context reveals important functional, as well as linguistic, patterns.

These claims of usefulness and pedagogical potential are supported by instructor and learner perceptions of the usefulness of individual p-frames in the teaching and learning of promotional writing, which was high overall. While previous studies have used similar ratings as an inclusion/exclusion metric (e.g., Ackerman & Chen, 2013; Lu et al., 2018), we have also examined these ratings themselves and the stated motivations of instructor and learner raters. The findings indicate that instructors and learners have, unsurprisingly, overlapping but distinct sets of values, and their ratings correlate moderately. Instructors valued p-frames that they deemed to be frequent, to have a range of useful variants, to have clear functional associations, and to be potentially transferable to other promotional genres. Learners also valued transferability and frequency, but they also valued perceived formality and often interpreted the value of p-frames according to reflective assessments of their own usage patterns. Though infrequent, some learners also noted the usefulness of formulaic language that could assist them in self-promotion, which is not ubiquitously valued across cultures and contexts.

From a pedagogical perspective, it is important to consider the role that these and other formulaic sequences can play in the development of genre-specific literacy and competence. English for Specific/Academic Purposes researchers have stressed that linguistic and rhetorical conventions should not be imparted as rules, with Swales (1990) arguing that ESP educators should focus on "consciousness raising," (p. 213) and Dudley-Evans (1997) cautioning that the emphasis should be on "the range of possibilities" (p. 62) rather than the 'right choices.' Certainly agentive participation in genre-practices involves both interaction with conventions and expression of creativity (or "innovation"; Tardy, 2016), and individuality is perhaps even more central to achieving the purpose of many promotional academic genres than to the purpose of those genres which are oriented around the construction and dissemination of disciplinary knowledge. Therefore, it is important for instructors to consider phrase frames, rhetorical move patterns, and other linguistic-rhetorical forms and functions as resources available for engaging in genre practices rather than templates or formulae. That is to say that the findings of this study can inform pedagogical approaches that develop learners' understanding of 'what they are doing' when writing such promotional materials at a conceptual level, as well as 'how they can do it' pragmatically, within the view that creativity itself may be a convention of at least some promotional genre practices.

The present study offers useful insights into the role of discontinuous formulaic sequences in promotional writing, highlights the potential pedagogical value of such linguistic resources, and notably, contributes to corpus-based genre-analysis. Of course, these findings come with caveats. While the present study analyzed the recurring formulaic sequences of successful Fulbright ETA grants in terms of rhetorical aims of the authors, it did not analyze the role that such features may play in the success. Future research can integrate the ratings of grant reviewers alongside instructors and learners to provide such insights, or it may ask instructors to analyze linguistic and rhetorical resources in textual context rather than the features themselves. Other limitations must be acknowledged, with the foremost being the small corpus size. At roughly 100,000 words, the sample is not ideal for the analysis of formulaic sequences. While a cross-text threshold of five was adopted to avoid privileging idiosyncrasies of individual writers, in such a small corpus it also represents a stringent boundary for inclusion and resulted in a relatively short list of p-frames. At the same time, the small corpus size means that variant pools for individual p-frames are rather limited. From a pedagogical perspective, examination of identified p-frames in the context of a

larger corpus might provide a rich means of populating the list of variants. Importantly though, there are practical obtainability limits to text-types such as PSs and SoGPs, as occluded-genre texts can be quite difficult to obtain (especially in large quantities), and the response rate was below five-percent for the construction of the current corpus. Thus, future research might explore phraseological features in a balanced corpus of several promotional text types, which can both address the corpus size limitation and provide cross-genre comparisons.

#### **CRediT authorship contribution statement**

**J. Elliott Casal:** Conceptualization, Formal analysis, Investigation, Methodology, Validation, Writing - original draft, Writing - review & editing. **Matt Kessler:** Conceptualization, Data curation, Investigation, Methodology, Validation, Writing - original draft, Writing - review & editing.

#### Appendix A. Supplementary data

Supplementary data to this article can be found online at https://doi.org/10.1016/j.system.2020.102370.

#### **Appendix**

P-Frame	Variants	Frequency		Function Strength		Teacher Rating
i would like to	apply, become, bring, catch, complement, coach, continue, discuss, do, engage, enter, further, give, have, incorporate, join, motivate, offer, return, start, study, volunteer, work	36	M2	0.64	3.4	3.6
will be able to *	analyze, bring, compare, conduct, continue, cultivate, form, help, make, participate, put, return, teach, understand, use	24	M1	0.50	3.3	3.6
i would be * to	able, excited, happy, open	19	M2	0.68	3.8	3.2
	attend, break, connect, experience, gain, give, maintain, merge, observe, participate, reinforce, spend, start, study, watch, work	19	M1	1.00	3.4	3.5
i have been * to	able, driven, eager, exposed, fortunate	19	M1	0.90	3.4	3.2
i have come to	adore, appreciate, believe, cherish, have, know, realize, relish, see, understand	16	M1	0.56	3.5	3.4
i am eager to *	engage, experience, explore, get, have, immerse, incorporate, join, learn, share, tinker, work	15	M3	0.53	3.7	3.3
i am interested in *	comparing, complexities, connecting, exploring, fostering, impacts, learning, promoting, taking, training, understanding	14	M3	0.64	3.6	3.6
had the opportunity to *	assist, experience, give, hold, participate, spend, study, teach, travel, work	13	M1	1.00	3.7	3.5
will allow me to *	apply, become, develop, do, form, integrate, investigate, participate, progress, understand	13	M2	0.62	3.6	3.2
i hope to * my	combine, continue, empower, engage, give, inspire, play, put, share, strengthen, utilize	13	M2	0.77	3.4	3.2
i want to * my	hear, utilize, support, sharpen, cultivate, continue, combine, dedicate, follow, ensure, empower, improve	12	M2	0.83	3.2	3.2
to be able to *	access, communicate, design, incorporate, live, make, talk, take, understand	9	M2	0.56	3.8	3.5
i look forward to *	bringing, conversing, engaging, expanding, increasing, living, sharing, synthesizing	9	M3	0.44	3.7	3.4
one of the most	defining, enduring, important, meaningful, powerful, satisfying, successful	9	M1	0.33	3.6	3.4
i am excited to	apply, bring, instill, meet, participate, seek, share, take, use	9	M1	0.40	3.4	3.3
i want to help *	create, eliminate, people, others, students	9	M2	1.00	3.4	3.2
i also hope to *	conduct, develop, engage, experience, see, study, volunteer	9	M2/M3	0.44	3.4	3.2
my goal is to *	create, expand, have, incorporate, incite, inspire, promote	8	M2	0.88	3.6	3.3
i hope to * with	collaborate, connect, practice, share, work	8	M2	0.75	3.5	3.6
	apply, bring, create, encourage, engage, share, use	8	M2	0.88	3.5	2.8
me the opportunity to *	combine, connect, ignite, mediate, share, spend, study	8	M2	0.63	3.4	2.5
	began, enrolled, hated, made, remembered, spent, studied,	8	M1	0.63	2.6	2.0
the opportunity to * a	be, become, make, spend, take	7	M2/M3	0.43	3.8	3.1
i want to * a	be, become, establish, lead, start	7	M2	0.71	3.7	3.2
	afforded, give, grant, provide	7	M2	0.43	3.6	3.6

(continued)

P-Frame	Variants	Frequency		Function Strength		Teache Rating
* me the opportunity to						
i hope to * a i am * by the a *	cultivate, create, gain, have, pursue excited, fascinated, intrigued, motivated understanding of the	7 7 better, broader, complete, deeper, fuller, greater	M2 M3 7	0.57 0.57 M3	3.6 3.5 0.57	3.1 3.4 3.5
i was * by the	amazed, captivated, frustrated, intrigued, struck establish, learn, pursue, study, understand	7 7	M4 M3	0.71 0.71	3.5 3.4	3.6 3.1
would * the opportunity to	appreciate, embrace, enjoy, have, treasure	7	M2	0.86	3.2	3.3
i * to pursue a	decided, hope, intend, plan influenced, inspired, motivate(d/s), prompted	7 7	M2 M2	0.71 0.57	3.1 2.8	3.4 2.8
i plan to * my to pursue a * in the opportunity	athletic, diverse, liberal, past, personal, policy continue, engage, further, incorporate, pursue, use career, masters, minor connect, converse, engage, speak, work	7 6 6 6	M2 M2 M4 M3	1.00 1.00 0.50 0.50	2.6 3.7 3.4 3.4	2.5 3.4 3.4 3.5
to * with i would * the opportunity	appreciate, embrace, enjoy, have, treasure	6	M2	0.83	3.2	3.5
in front of a *  * prepare me  for a	class, classroom, crowd, handful better, directly, help, will	6 6	M1 M3	0.5 0.83	3.1 3.0	2.8 2.8
	chance, means, opportunity	6	M1	0.67	2.9	2.9
as a * i have immerse myself in the *	photographer, student, twin, vocalist, writer community, culture, customs, education, language	6 6	M1 M3	0.67 0.67	2.8 2.7	2.5 2.7
in the * of education	area, complexities, field, role, school	6	M1	0.50	2.6	2.3
language	aspects, diversity, instructor, love, understanding	6	M1	0.83	2.5	2.2
gain a * 3.9	understanding of	better, broader, deeper, greater	5	M2/M3	0.40	3.6
have the opportunity to *	hone, increase, study, take	5	M1/M2	0.40	3.5	3.1
	google, professor, roommates, teacher	5	M1	0.80	3.5	3.0
i would * to teach	like, love	5	M3	0.80	3.4	2.8
	identity, identity, life, plans aspire, plan, want(ed) hope, plan, want like, love	5 5 5 5	M4 M2 M2 M2	0.80 0.80 1.00 1.00	3.4 3.4 3.3 3.3	3.1 3.3 2.7 3.4
	develop, explore, provide, share, write bring, further, improve, practice, use	5 5	M2 M3	0.80 0.40	3.2 3.1	2.7 3.2
	hope, plan, strive, want background, dedication, experience	5 5	M2 M1	0.80 1.00	3.0 3.0	3.0 3.0
	can, will, would encourage, form, grab, have, tailor	5 5	M1 M1	0.60 1.00	2.9 2.9 inued on 1	3.0 3.2

(continued)

P-Frame	Variants	Frequency		Function Strength		Teacher Rating
taught me how						
to *						
me the chance to *	become, discover, experience, live, share	5	M2	0.40	2.9	2.5
taught me the * of	power, value	5	M4	0.80	2.8	2.7
the * of my life	course, rest, trajectory	5	M2/M4	0.40	2.8	2.7
serve as a * for	catalyst, resource, touchstone, voice	5	M2	0.80	2.8	2.6
to * my love of	incorporate, share, spread, utilize	5	M2	1.00	2.7	2.7
to * a part of	be, lose	5	M3	0.80	2.6	2.7
me the importance of *	adapting, 'an open mind', education, engagement, environment	5	M1	1.00	2.6	2.4
* to immerse myself in	able, chance, needed	5	M3	0.80	2.3	1.6
a * of the world	citizen, part, sense	5	M2	0.63	2.7	2.4

#### References

Ackerman, K., & Chen, Y. (2013). Developing the academic collocation list (ACL) — a corpus-driven and expert-judged approach. *Journal of English for Academic Purposes*, 12, 235—247.

Anthony, L. (2019). AntConc [Computer Software]. Tokyo, Japan: Waseda University. Available from: Version 3.5.8. https://www.laurenceanthony.net/software.

Bhatia, V. K. (1993). Analysing genre: Language use in professional settings. New York, NY: Longman.

Brown, R. (2004). Self-composed: Rhetoric in psychology personal statements. Written Communication, 21(3), 242-260.

Charles, M. (2011). Using hands-on concordancing to teach rhetorical functions: Evaluation and implications for EAP writing classes. In A. Frankenberg-Garcia, L. Flowerdew, & G. Aston (Eds.), New trends in corpora and language learning (pp. 26–43). London: Continuum.

Chiu, Y.-L. T. (2016). 'Singing your tune': Genre structure and writer identity in personal statements for doctoral applications. *Journal of English for Academic Purposes*, 21, 48–59. https://doi.org/10.1016/j.jeap.2015.11.001

Connor, U., & Mauranen, A. (1999). Linguistic analyses of grant proposals: European union research grants. English for Specific Purposes, 18(1), 47–62.

Cortes, V. (2013). The purpose of this study is to: Connecting lexical bundles and moves in research article introductions. *Journal of English for Academic Purposes*, 12, 33–43. https://doi.org/10.1016/j.jeap.2012.11.002

Ding, H. (2007). Genre analysis of personal statements: Analysis of moves in application essays to medical and dental schools. *English for Specific Purposes*, 26, 368–392.

Dong, J., & Lu, X. (2020). Promoting discipline-specific genre competence with corpus-based genre analysis activities. *Journal of English for Academic Purposes*, 58, 138–154.

Durrant, P., & Mathews-Aydınlı, J. (2011). A function-first approach to identifying formulaic language in academic writing. *English for Specific Purposes*, 30, 58–72. https://doi.org/10.1016/j.esp.2010.05.002

Ellis, N. C., & Cadierno, T. (2009). Constructing a second language. Annual Review of Cognitive Linguistics, 7, 111-139. Special section.

Fletcher, W. H. (2012). KfNgram. Annapolis MD: USA.

Gray, B., & Biber, D. (2013). Lexical frames in academic prose and conversation. *International Journal of Corpus Linguistics*, 18(1), 109–136. https://doi.org/10.1075/ijcl.18.1.08gra

Gray, B., Cotos, E., & Smith, J. (2020). Combining rhetorical move analysis with multi-dimensional analysis: Research writing across disciplines. In U. Römer, V. Cortes, & E. Friginal (Eds.), Advances in corpus-based research on academic writing. Effects of discipline, register, and writer expertise (pp. 138–168). John Reniamins

Halleck, G. B., & Connor, U. M. (2006). Rhetorical moves in TESOL conference proposals. Journal of English for Academic Purposes, 5, 70–86.

He, X., & Godfroid, A. (2019). Choosing words to teach: A novel method for vocabulary selection and its practical application. *Tesol Quarterly*, 53(2), 348–371. Hyland, K. (2005). Stance and engagement: A model of interaction in academic discourse. *Discourse Studies*, 7(2), 173–192.

Kessler, M. (2020). A text analysis and gatekeepers' perspectives of a promotional genre: Understanding the rhetoric of Fulbright grant statements. *English for Specific Purposes*, 60, 182–192.

Kuteeva, M., & McGrath, L. (2013). The theoretical research article as a reflection of disciplinary practices: The case of pure mathematics. *Applied Linguistics*, 36(2), 215–235.

Le, T. N. P., & Harrington, M. (2015). Phraseology used to comment on results in the discussion section of applied linguistics quantitative research articles. English for Specific Purposes, 39, 45–61. https://doi.org/10.1016/j.esp.2015.03.003

Li, Y., & Deng, L. (2019). I am what I have written: A case study of identity construction in and through personal statement writing. *Journal of English for Academic Purposes*, 37, 70–87. https://doi.org/10.1016/j.jeap.2018.11.005

López-Ferrero, C., & Bach, C. (2016). Discourse analysis of statements of purpose: Connecting academic and professional genres. *Discourse Studies*, 18(3), 286–310.

Lu, X., Casal, J. E., & Liu, Y. (2020). The rhetorical functions of syntactically complex sentences in social science research article introductions. *Journal of English for Academic Purposes*, 44, 1–16.

Lu, X., Yoon, J., & Kisselev, O. (2018). A phrase-frame list for social science research article introductions. *Journal of English for Academic Purposes*, 36, 76–85. Mizumoto, A., Hamatani, S., & Imao, Y. (2017). Applying the bundle-move connection approach to the development of an online writing support tool for research articles. *Language Learning*, 67(4), 885–921.

Moreno, A. I., & Swales, J. M. (2018). Strengthening move analysis methodology towards bridging the function-form gap. *English for Specific Purposes*, 50, 40–63. https://doi.org/10.1016/j.esp.2017.11.006

Nathan, P. (2013). Academic writing in the business school. *Journal of English for Academic Purposes*, 12(1), 57–68. https://doi.org/10.1016/j.jeap.2012.11.003 Omidian, T., Shahriari, H., & Siyanova-Chanturia, A. (2018). A cross-disciplinary investigation of multi-word expressions in the moves of research article abstracts. *Journal of English for Academic Purposes*, 36, 1–14.

O'Donnell, M., Römer, U., & Ellis, N. C. (2013). The development of formulaic sequences in first and second language writing: Investigating effects of frequency, association, and native norm. *International Journal of Corpus Linguistics*, 18(1), 83–108.

Peacock, M. (2002). Communicative moves in the discussion section of research articles. System, 30, 479-497.

Römer, U. (2010). Establishing the phraseological profile of a text type: The construction of meaning in academic book reviews. *English Text Construction*, 3(1), 95–119. https://doi.org/10.1075/etc.3.1.06rom

Samar, R. G., Talebzadeh, H., Kiany, G. R., & Akbari, R. (2014). Moves and steps to sell a paper: A cross-cultural genre analysis of applied linguistics conference abstracts. Text & Talk, 34(6), 759–785.

Samraj, B., & Monk, L. (2008). The statement of purpose in graduate program applications: Genre structure and disciplinary variation. *English for Specific Purposes*, 27, 193–211.

Swales, J. M. (1990). Genre analysis: English in academic and research settings. Cambridge: Cambridge University Press.

Swales, J. M. (1996). Occluded genres in the academy: The case of the submission letter. In E. Ventola, & A. Mauranen (Eds.), *Academic writing: Intercultural and textual issues* (pp. 45–58). Philadelphia, PA: John Benjamins Publishing Company.

Swales, J. M. (2004). Research genres: Exploration and applications. Cambridge: Cambridge University Press.

Tardy, C. M. (2009). Building genre knowledge. West Lafayette: Parlor Press.

Tardy, C. M. (2016). Beyond convention: Genre innovation in academic writing, Ann Arbor, MI: University of Michigan Press.

Tomasello, M. (2003). Constructing a language: A usage-based theory of language acquisition. Cambridge, MA: Harvard University Press.

Wang, Y., & Bai, Y. (2007). A corpus-based syntactic study of medical research article titles. System, 35, 388–399. https://doi.org/10.1016/j.system.2007.01.

Yoon, J., & Casal, J. E. (2020). P-frames and rhetorical moves in applied linguistics conference abstracts. In U. Römer, V. Cortes, & E. Friginal (Eds.), Advances in corpus-based research on academic writing: Effects of discipline, register, and writer expertise (pp. 282–305). John Benjamins.

J. Elliott Casal is a Ph.D. Candidate in Applied Linguistics and a University Graduate Fellow at The Pennsylvania State University, as well as a Research Scholar in the Case Western Reserve University Department of Cognitive Science. His research interests include corpus linguistics and corpus-based writing pedagogies, domain specific literacy, and second language writing. His work appears in the Journal of Second Language Writing, Journal of English for Academic Purposes, International Journal of Applied Linguistics, Language Learning and Technology, and System.

**Matt Kessler** Matt Kessler is an Assistant Professor of Applied Linguistics in the University of South Florida's Department of World Languages. His research focuses on issues related to L2 literacy and writing development, along with computer-assisted language learning. Matt's research has appeared in titles such as Computers and Composition, English for Specific Purposes, and Language Teaching Research, among other media.