



Are We Doing It Right? Delving into the Structure of Published English Article Abstracts in Allameh Tabataba'i University Journals in the Fields of Counseling, Industry, linguistics, and Management

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Abstract

Abstracts are the first reading contact of scientific reports providing the reader with the decision to either continue reading the full text or not, hence requiring great care when it comes to writing an effective abstract. The present study investigates the structures of abstracts of research articles written in Persian using the IMRD model. In doing so, 80 article abstracts from eight journals in different disciplines of humanities (all belonging to Allameh Tabataba'i University) published between 2015 and 2017 were selected. A content analysis of the rhetorical structural conventions of research article abstracts written in Persian-language journals was carried out. The results showed that only 16.25% of the abstracts used the IMRD model (the most prevalent structure being IMR with 50% of presence). Wide variations were observed in the moves of the abstracts across and within the journal articles. The implications are more tangible for researchers of each discipline and their expectations towards abstract writing as it will allow the educators more freedom when dealing with identifying anomalies and assisting MA and PhD holders in internalizing the appropriate conventions in academic discourse. The findings are beneficial for the researchers in the fields of counseling, industry, linguistics, and management.

Keywords: abstract, IMRD model, rhetorical structure, academic discourse

1. Introduction

Due to the important roles abstracts play in grabbing the attention of readership (El-Dakhs, 2018), writing an eye-catching abstract can improve one's chance of getting published in prestigious international journals. However, since the Persian language is used in the majority of journals published in Iran, the question arises as to if abstracts of the Persian journals follow international norms, a national norm, or a disciplinary one. To answer this question, a look at the studies on the abstract writing in general and the rare studies on Persian abstracts in particular can help bridge the gaps of the studies.

As important sections of a written work, abstracts act as a gateway for readers to understand a study before diving into the full content, making them vital components of scholarly communication. Crafting informative abstracts is crucial for engaging readers and effectively conveying the study's essence. Bonsu (2023) highlighted the importance of preparing abstracts for various academic items, including journals, proceedings, reports, theses, and monographs, to facilitate information dissemination

and accessibility. Additionally, Liu (2024) discussed abstracts as short summaries encapsulating manuscript elements, stressing their role in offering readers a snapshot of research content. Moreover, Li et al. (2020) emphasized the significance of presenting research through a narrative style in abstract as a cohesive narrative with a problem-solving approach, engaging readers through a structured beginning, middle, and end. This narrative style in abstract writing can enhance the readability and impact of scientific papers. Furthermore, Anam (2025) provided detailed suggestions for writing abstracts for scientific papers or conference presentations, focusing on structuring the background, methods, results, and conclusions sections effectively. Among the areas mentioned in the analysis of research genres, there are various studies in the field of abstracts of research articles (Zare & Naseri, 2021; 2023) in writing English articles and genre analysis of the abstract section of psychology and linguistics research articles by Anam (2025).

An undeniable part of any scholarly manuscript is the abstract which, most often, needs to be submitted along with the original research paper (Martin, 2003). According to Ventola (1994) as well as Hartly and Benjamin (1998), abstracts have been a portal into the literature of research and are a handy tool of managing and mastering the flash flood of information in the scientific community. Abstract has also been defined by the American National Standards Institutes (ANSI) as “an abbreviated, accurate representation of the context of a document, preferably prepared by its author(s) for the publication with it” (Lores, 2004, p. 281).

During recent decades, studies on research articles (RA) have increased dramatically. These studies focus on a variety of issues regarding RAs such as their structures, social construction, and historical evolution. Among these studies, a collection of them have fully concentrated on different parts of research articles including the abstract (e.g., Salager-Mejer, 1992), the introduction (e.g., Swales, 1981, 1990; Swales & Najjar, 1987), the result section (Thompson, 1993), and the discussion (Hopkins & Dudley-Evans, 1988). Alongside these studies, a series of lexico-grammatical features of the research articles (ranging from tense range to citation practices) and the historical growth of research articles (Salager-Mejer, 1999) have been under investigation as well.

Martin (2003) found that Spanish research article (RA) abstracts follow the international English RA abstract style and present the four sections of Introduction, Method, Results, and Discussion in brief. However, the article also found a little variation in the Results section, on which Spanish abstracts have laid much less emphasis (i.e. the percentage of abstracts including this section in Spanish article abstracts was nearly half as much as their English counterparts). Also, the percentage of Spanish abstracts using Move 2 of the CARS model (Swales, 1990) has been approximately one third of the English abstracts. The reason for the latter finding is that Spanish research community does not favor criticism of previous research and authors.

Lon et al. (2012) used Santos' (1996) proposed 5-move structure for abstracts and found out that abstracts written by students often lacked moves 4 and 5 (summarizing the findings and discussing the research, respectively). The reason for this was a lack of proper training that had left the students unaware of the necessity of these moves. This is while as Nguyen (2025) observed, notable differences emerged in the organizational patterns and rhetorical strategies, suggesting that international scholars tend to employ more intricate rhetorical structures and demonstrated a stronger emphasis on conveying their authorial stance. These findings underscore the impact of disciplinary conventions, discourse community norms, and socio-cultural influences on abstract composition.

Recently, research articles are to go hand in hand with an informative abstract in order to get readership. As Li (2022) suggested there has been a shift towards more reader-friendly approaches of writing as opposed to the already existing rigid structures. This is while previous studies of research article abstracts have dealt with various factors or disciplines, for instance medicine, psychology, and applied linguistics, whose main focus was significantly on two dimensions of abstracts: either the rhetorical organization, also called the move structure (e.g., Cross & Oppenheim, 2006; Lau, 2004; Santos, 1996), or the linguistic realizations of the moves (e.g., Busch-Lauer, 1995; Pho, 2008).

In 1990, Swales' previous four-move structure was revised to a three-move pattern, called the CARS model. This model has been divided into three sections, namely establishing a territory, establishing a niche, and occupying the niche. A number of investigations on the RA introduction focus on the spiral nature of introductions, how authors use the references in introductions, and the investigation of texts which are written in different languages and cultures using Swales' model (e.g., Fredrickson & Swales, 1994). The examples include the analysis of citation practices of expert writers (e.g., Pickard, 1995), the investigation of citation practices in academic texts (e.g., Thompson, 2000), extending Swales' division of citation forms (e.g., Thompson & Tribble, 2001), and the investigation of RA introductions from two disciplines (e.g., Samraj, 2002). In spite of the fact that there have been several studies in academic writing, the number of research studies on analysis of two types of sub-genres (abstract and introduction parts) written in Persian and English are few.

Howard et al. (2024) examined the increase in AI content detection in oncology scientific abstracts, highlighting the use of AI models like GPT-3.5 and GPT-4. Kim's (2024) study assessed the reproducibility of structured abstracts generated by ChatGPT and Bard in the field of spine surgery, emphasizing compliance with journal guidelines. Lawrence et al. (2024) conducted a single-blinded analysis comparing human and AI-generated arthroplasty literature, noting similarities in quality. Suharsono et al. (2024) explored thematic progression in texts written by humans and AI, indicating ChatGPT's ability to mimic human speech patterns. These studies collectively underscore the potential of AI in generating abstracts that closely match human-written counterparts, offering insights into the evolving landscape of AI-assisted academic writing. Khatri (2022) stresses the inclusion of five key components in an abstract, such as research context, key findings, and implications, to accurately represent the paper. This underscores the critical role of abstracts in providing a concise overview of research content and its significance to readers.

2. Literature Review

2.1. The Concept of genre

Over the last few decades, the notion of genre and its role in language teaching and learning practice has gained momentum (Hyland, 2004). Swales and Feak (2009) have defined the concept of genre as "a type of text or discourse designed to achieve a set of communicative purposes" (p.1). Three different approaches to genre have been identified by scholars: The New Rhetoric Approach, the ESP (English as specific purpose) Approach, and the Systematic Functional Linguistics (Hyland, 2003).

In the Rhetoric Approach, the emphasis is mainly on the action which is used to accomplish its purpose, trying to establish the interaction between genres and repeated situations, and to determine the way genre is seen as recurrent rhetorical actions; therefore, there is less stress on the form of discourse (Hyland, 2002). According to ESP experts, genre is a combination of communicative events, for instance

a university lecture, or even an academic essay (Paltridge, 2001). Furthermore, they declared that the events are shared understandings among the members of the community. This notion is based on Swales' own work (1990) on the discourse structures and linguistic features of scientific reports.

In Systematic Functional Linguistics, genre is considered as a kind of text which has a related form, function, and context such as a description, procedure, or exposition (Paltridge, 2001). In this approach, a genre contains the communication of participants with a language that has a conventional and step-wise structure (Hyland, 2002). Diverging views have been suggested to define genre; therefore, it can be concluded that several aspects need be taken into consideration and that referring to text structure alone cannot be done (Paltridge, 2001).

Swales asserted that a class of communicative events can shape a genre in which the members have shared purposes. These purposes are identified by scholars and lead to a rationale for the genre. These rationales function as the schematic structure comprising the discourse and affect the choice of style and content. Samraj (2005) declared that the main focus of several investigations is a single genre rather than its relations with others, considering the fact that each macro-genre can be divided into some sub-genres. These sub-genres are abstract, introduction, literature review, method, results and discussion, and conclusion. It is believed that each sub-genre consists of some functional moves that unfold the goal behind the linguistic expressions of that part. According to Richards and Schmidt (2002), a move is “a unit of discourse which may be smaller than an utterance” (p.344). Thus, these functional units are realized within the text.

The point which is unquestionable refers to the variety of RA structure among languages; therefore, the researchers who have the desire of publication in international communities should be aware of the cross-linguistic differences in text structures. This issue has been intensified recently because of the growth in academic community interaction and the scholars' interest in mastery over the writing conventions. This could be partly due to the fact that, as Kurniawan and Saliba (2021) pointed out, whether a journal is indexed or not exerts minimal influence on how abstracts are written, suggesting that other factors—such as author expertise, institutional guidelines, or peer-review expectations—may play a more substantial role in shaping abstract quality.

2.2. International Studies

Not only move analysis, but also other features of abstracts in RAs in several disciplines, including both hard and soft fields, have been scrutinized. Rhetorical structures of abstracts have been analyzed by some scholars. To begin with, Lau (2004) did a study using the corpus in the discipline of life science; Santos (1996) conducted a study in which he used a corpus in applied linguistics. Alongside these studies, a number of studies examined verb-tense and modality which were used in three types of English medical journal abstracts.

Lau (2004) did a survey in which he compared 50 Taiwanese Ph.D. students' RA abstracts with RA abstracts which were written by 30 foreign scholars (the abstracts were published in the Life Science Journal). His purpose was to examine the beliefs and factors that might influence structural patterns of academic abstracts. After analyzing 80 abstracts, he concluded that the abstracts which were written by foreign scholars contain five moves, with the exception of method. On the other hand, students' abstracts did not consist of all the five moves and the percentage of increasing five moves was low in comparison with foreign scholars. Three reasons were suggested by Lau for this finding: academic immaturity,

linguistic inadequacy, and a word limit set for abstracts. He believed that structural patterns should be taught to the students as a necessary movement.

Another study was conducted by Santos (1996) about move structures of the abstracts in applied linguistics. He had a close look at 94 published RA abstracts at macro and micro-levels. He highlighted some issues based on his study which are divided in the following. firstly, he found a lack of match between technical writing textbooks recommendations and the writers' style of writing. Secondly, he proposed a schematic pattern which can be used as a pedagogical tool. Finally, his main concern was devoted to the genre specific convention features. These features include the textual space (move balance), the mixing of moves into the same statement (move embedding), and the reverse sequence of moves (move reversal).

Additionally, Salager-Mejer (1992) conducted a study on text-type and move analysis of verb tenses and modality distributions in English medical research paper abstracts. Their findings demonstrated a strong relationship between the use of verb tenses and modality and the rhetorical function of every single abstract move. The communicative function of each medical English text type identifies the use of verb tenses in research papers. In addition, this study revealed that there exists a close relationship between suggestive discourse and the use of modality, which shows a limitation of claims pushing the writers to move their findings away from the fact-like statuses.

In yet another study, Ding (2007) focused on the moves in application essays sent to medical and dental schools. He asserted that little research has been carried out on moves functional features; moreover, little instruction has been given about it, and thus accentuating the significance of more body of research on this.

Al-Khasawneh (2017) has analyzed native- and non-native-written RA abstract move structures based on Hyland's (2000) model which entails the five moves of Introduction, Purpose, Method, Product, and Conclusion. The study has revealed that despite similarity in authoring purpose, method, and conclusion, the nonnative writers have not emphasized the introduction and conclusion as much as their native counterparts. Fallatah (2016) studied the Saudi RA abstracts based on Swales and Feak's (2009) five-move CARS model (which includes situating the research, presenting the research, describing the methodology, summarizing the findings, and describing the research), and came to the conclusion that these articles were different from the international abstract norms from different angles.

Another study in this arena is that of Wang and Tu (2014), which compared 1000 journal articles based on the CARS, IMRD, and IPMPPrC models, and revealed that the most widely applied model was that of IMRD (54%), much more used than the CARS (17%) and IPMPPrC (29%). This can cast doubts on the findings of many abstract structure studies that relied on the less popular CARS and IPMPPrC models.

Doro (2013) also hired Santos' model to show the existence of interdisciplinary variation between the linguistic and literature RA abstracts, with the former being clearer about the research scope, methodology, and results, while literature abstracts better occupied the niche. Moreover, it was contended that abstracts with three moves or less are vague and are warned against.

In a qualitative study, Junanto et al. (2024) found that the abstracts written by Indonesian university students they reviewed entailed all three steps of the CARS model, but lack some moves. The most outstanding case of the missing move was related to step 3 of move 1, which regards reviewing

items of previous research. Analysis of research article genres, sub-genres rhetorical structure, and moves have been the main concern in several studies. These studies are mainly focused on articles written in English, whether by natives or non-natives. Therefore, novel studies need to be carried out in order to investigate the differences with regards to the moves in Persian and English languages.

2.3. National Studies

Marefat and Mohammadzadeh (2013) analyzed 90 abstracts of literature articles written by Persian and English writers based on IMRD and CARS models, and concluded that literature writers often included introduction and results sections in their abstracts while they did not do so with the method and discussion. Moreover, borrowing the term from CRAS model, the authors found out that literature abstract do not establish the niche. Finally, the study revealed that Persian literature articles had deviations from both the international and the Persian abstract norms and were a bit specific, i.e. they showed that abstract structures possess disciplinary genre specificity.

Hasrati et al. (2010) made a qualitative analysis of Persian abstracts article based on IMRD and CARS and found that Persian RA abstracts do not follow these models, no matter if the article comes from soft or hard sciences, with some abstracts being one-move funnels that is a broad to narrow introduction of topic. The reason is said to be space limitations.

Ansarin and Rashidi (2009) found that there was no significant difference between English and Persian students of applied linguistics in writing abstracts, and the latter group showed tendency towards the international English norms rather than the national and local norms. The only variation was the difference in one of the steps of the first move (i.e. step 1B, announcing present research) where nonnatives had a higher mean rank than the natives.

Khomeinishahr and Talebinejad (2020) found that Iranian research articles emphasized the third move of the CARS model more than the native speaker authors, while the latter group used significantly more move 1 than the former group.

Moreover, Shabani and Emadi (2021) found that among the various moves and steps of the Cars model, the 251 Iranian the dental sciences research article abstracts lacked some steps. These included M3S2 and M3S7 (presenting research questions/ hypotheses and outlining structure of paper, respectively), which were not used in the abstracts at all. Moreover, M1S3 (reviewing items of previous research) had been employed only once.

Last but not least, Kazemi (2025) conducted a genre-based study examining a corpus of 60 research articles—30 from the field of Applied Linguistics and 30 from Medical Sciences—equally divided between native and non-native English-speaking authors, published between 2015 and 2024. Through meticulous analysis and article-by-article comparison, the study revealed a high frequency of verbal nominalization across all groups. No statistically significant difference was observed between native and non-native academic writers in either discipline. However, notable variation emerged between the two academic domains: nominalization was employed more extensively and with greater sophistication by writers in Applied Linguistics than those in Medical Sciences.

A review of the studies done in the Iranian context shows that the article abstracts written by Iranian authors do not follow the common frameworks in their full form, and various deviations do occur in these abstracts.

These studies highlight the need for the current study to be based on an effective framework for comparing various models such as IMRD (Introduction, Methods, Results, Discussion), CARS (Create a Research Story), and Santos, to identify the essential components that characterize each model, evaluate their methodological strength, and determine their applicability in specific research contexts. Models like IMRD provide a systematic format that organizes research into four core sections: Introduction, Methods, Results, and Discussion (Swales, 1990). This linear trajectory enables clarity and ease of understanding, especially in clinical or experimental studies (Rajakaruna et al., 2023). CARS complements this by focusing on narrative coherence, assisting authors in crafting persuasive arguments that highlight the significance of their research in the wider academic discourse (Rajakaruna et al., 2023). In contrast, Santos' model emphasizes a broader interpretative framework that can encompass qualitative analyses alongside quantitative data, highlighting variable interplay in complex systems (Rajakaruna et al., 2023). Overall, IMRD, as the framework implemented in this study serves particularly well in empirical research where systematic data presentation is paramount, and its evaluation methodologies (Voynova et al., 2022; Yang et al., 2022).

3. Research Questions

As the brief review of literature above discloses, there is a need for the further examination of the Persian RA abstracts structure based on the more common IMRD model, as found by Wang and Tu (2014). Moreover, due to the differences between the findings of such studies as Marefat and Mohammadzadeh (2013) and Ansarin and Rashidi (2009) on the similarity of Persian RA structures to the international English norms as well as the finding of Hasrati et al. (2010) that Persian articles do not follow neither IMRD nor CARS models, the study at hand was aimed at examining the structure of the Persian RA abstracts with the IMRD model to see if this seeming discrepancy was true. In addition, as a result of the difference between the findings of Marefat and Mohammadzadeh (2013) and Hasrati et al. (2010) about the disciplinary norm-seeking of the Persian article abstracts, the second question of the present study was proposed. Consequently, this study was guided by the following questions.

1. To what extent do the RA abstracts of Persian journals conform to the prevalent IMRD model according to the Persian academic norms and global expectations?
2. What are the generic similarities and differences among ATU RA abstracts based on the IMRD model in different fields of study?

4. Method

4.1. Research Design

This research project was a descriptive study on the structure of research article abstracts. In order to provide the data of the study, a set of journals were needed to be selected from among the 51 journals enlisted on the Allameh Tabataba'i University Publications webpage, based on several criteria. First, only those journals were used in this study which had at least one year of publication prior to 2016. Second, only those journals were selected which had published their last issue of the year 2018. This left the authors with only eight journals which were selected to be included in the data analysis phase.

4.2. Procedure

All journals, save for one, are published four times a year. Besides, all journals were published in Persian, with abstracts both in Persian and English. Moreover, the journals have been published from as far as the spring of 1991, though the youngest journal has been published from the winter of 2015. In addition, since ATU is a humanities university, all journals in a way dealt with the topics related to this domain. However, the journals belonged to different subfields of humanities, including information sciences, psychology, management, linguistics, state, knowledge studies, and literary texts. The detailed information related to the journals involved in the study is given below in Table 1.

Table 1

Features of the Corpus Journals

	Journal name	Publication Frequency	Scope	Type of journal	First publication date	Article language
1	Industrial Management Studies	4	Industrial Management	Academic / Scholarly	Summer 2003	Persian
2	New Media Studies	4	Media Studies	Academic / Scholarly	Spring 2015	Persian
3	Management Studies in Development and Evolution	4	Management, Management Development	Academic / Scholarly	Spring 1991	Persian
4	Counseling Culture and Psychotherapy	4	Counseling, Psychotherapy	Academic / Scholarly	Spring 2010	Persian
5	Translation Researches in the Arabic Language And Literature	2	Linguistics	Academic / Scholarly	Autumn 2011	Persian
6	The State Studies	4	State	Academic / Scholarly	Winter 2015	Persian
7	Knowledge Studies	4	Knowledge Studies	Academic / Scholarly	Winter 2015	Persian
8	Literary Text Research	4	Literary Texts	Academic / Scholarly	Spring 1997	Persian

After the journal selection, 10 articles were randomly selected from each journal from the years 2016 to 2018. This led to a corpus of 80 abstracts. In general, 186 authors were involved in penning down the 80 articles of the corpus. Moreover, 38 authors were Master's students or MA holders, 131 authors were PhD students or PhD holders, and 17 authors did not openly state their affiliation. Finally, with regard to author affiliations, the majority of authors were from different universities of Iran, and very few authors from research centers or companies. There have been some authors whose affiliation has not been clarified. A detailed picture of the author characteristics is offered in Table 2 below.

Table 2*Author Characteristics*

	Journal	Author number	Degree			Affiliation			
			MA	PhD	n.d.	University	Research center	Company	n.d.
1	IJMS	29	9	19	1	26	0	1	2
2	NMS	26	5	20	1	22	3	0	1
3	JMSD	24	7	17	0	24	0	0	0
4	QCCP	27	8	19	0	26	0	0	1
5	TRAL	19	2	15	2	19	0	0	0
6	QKS	26	4	9	13	22	0	0	0
7	SSQ	14	0	14	0	12	0	0	0
8	LTR	21	3	18	0	19	0	0	0
Sum		186	38 (20%)	131 (70%)	17 (9%)	170 (95.5%)	3 (1.6%)	1 (0.5%)	4 (2%)

4.3. Data Analysis

With regard to the number of authors, the Industrial Management Studies ranked first (with 29 authors), while the Science Studies Quarterly ranked the last (with 14 authors). Concerning the degree of the authors, 131 authors (70% of the sample) were PhD holders or PhD students. Finally, with regard to author affiliations, the majority of authors came from universities (170 authors, 95.5 percent). Only three authors came from research centers, all of whom participated in writing articles for the journal *New Media Studies*. However, in the Industrial Management Studies, there was only one author from a company participating in one of the articles, despite the fact that this journal is to some extent focused on industry.

The main method of data analysis was comprised of frequency counts and percentages. These were used to compare different layers of data obtained. Moreover, the IMRD model (Swales, 1990) was used as the yardstick against which the rhetorical structure of the abstracts would be disclosed. That is to say, the abstracts were examined to see if they contained any information about the introduction, method, results, and discussion sections of the article. Any missing or added substructure (e.g. lack of discussion section or addition of conclusion section) was also recorded, so that a broader picture of the sample rhetorical structure could be provided. The emergent themes of this stage were extracted and coded by two coders and then, inter-coder reliability coefficients were performed to ensure the reliability of the coding and interpretation of the data which showed to be 0.95 which is well above 0.70, conventionally set as threshold level by Bos (1989).

5. Results

The present contribution was an attempt to examine the rhetorical structure of 80 abstracts of the research articles published in the Allameh Tabataba'i University journals from 2016 to 2018. In doing so, two questions were proposed on the general congruence of the ATU abstracts and the IMRD structure, and the generic similarities and differences between the abstracts of the articles from different fields of study. The results of the investigation are presented accordingly in this section.

Question 1: To what extent do the RA abstracts of Persian journals conform to the prevalent IMRD model?

To answer this question, we might look at the general results of the examination of the abstracts based on the IMRD framework. Table 3 below presents the IMRD subsection counts in ATU abstracts.

Table 3

IMRD Subsection Counts in ATU Abstracts

	IJMS	NM S	JMSD	QCCPC	TRALL	QKS	SSQ	LTR	Sum
Introduction	9	10	10	10	9	7	10	10	75
Method	10	10	10	10	9	10	10	9	78
Results	5	10	9	10	9	8	5	5	61
Discussion	0	1	0	2	3	6	3	2	17
Implications	0	0	1	0	0	0	0	0	1

As this table reveals, the method section has been the substructure that has been present in almost all examined abstracts ($n = 78, 97.5\%$), with the introduction section coming at the second rank ($n = 75, 93.75\%$). The third rank goes to the results section, which has been present in 61 abstracts (76.25%). All these three frequently used substructures go well with the IMRD framework. However, the one very drastic difference between our corpus and the one used by Swales (1990) is that ATU abstracts generally avoid including the discussion section ($n = 17, 21.25\%$). This is in sharp contrast to IMRD structure. Moreover, there has been one case of the inclusion of implications – as part of the conclusion section – in the corpus.

To better illustrate the overall presence of rhetorical components in the abstracts, Figure 1 displays the aggregated frequencies of Introduction, Method, Results, and Discussion moves across the full corpus of 80 abstracts. As the figure indicates, the Introduction and Method sections are nearly ubiquitous, while the Results section appears slightly less frequently. The Discussion move, however, is noticeably underrepresented, pointing to a broader deviation from the full IMRD framework.

Figure 1

Frequency of IMRD Subsections in ATU Abstracts

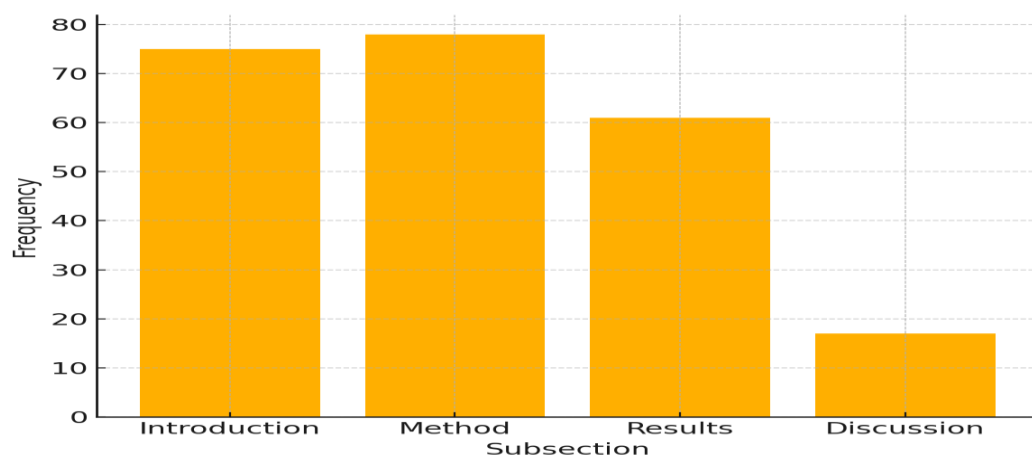
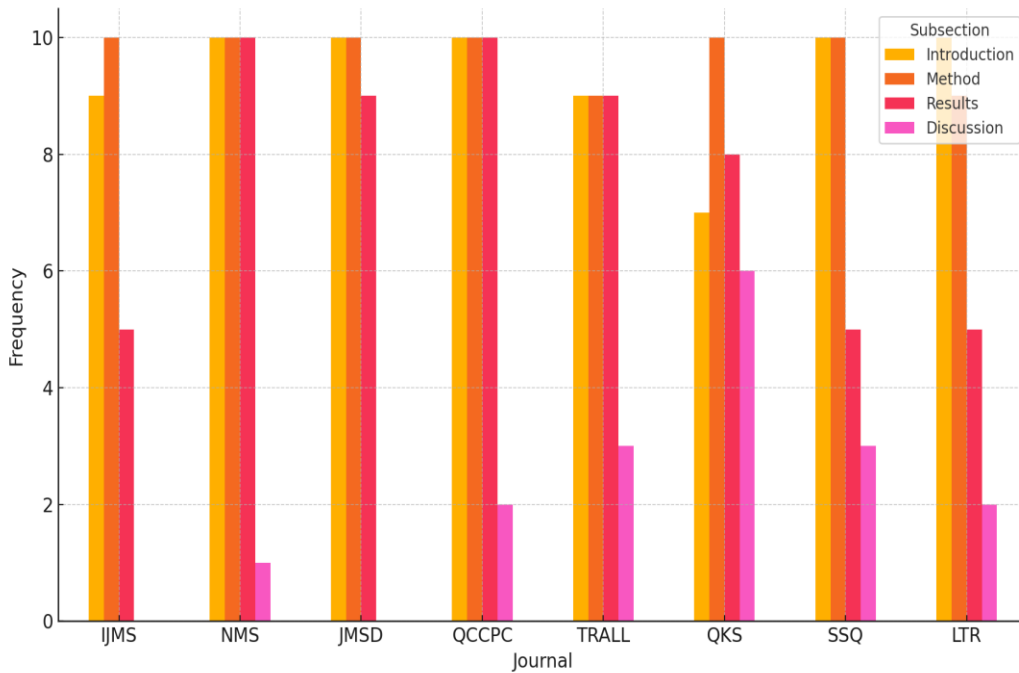


Figure 2 provides a journal-by-journal breakdown of the IMRD subsections to highlight disciplinary variation. While all journals consistently include the Introduction and Method moves, the Results and especially the Discussion sections vary significantly across disciplines. For example, journals focused on counseling or linguistics tend to include Discussion more often, whereas more technical or management-oriented journals often omit it.

Figure 2

Distribution of IMRD Subsections across ATU Journals



Along with counting the existence of IMRD subsections in the corpus, another way to the general examination of the data was to summarize the rhetorical structure of each abstract and then count the number of each structure type. The results of this analysis are presented in Table 4 below.

Table 4

Rhetorical Structure Types and Token

Structure	Count	Percent
IMR	40	50
IM	18	22.5
IMRD	13	16.25
IMRC	1	1.25
MRD	3	3.75
MC	1	1.25
N/D	4	5
Sum	80	100

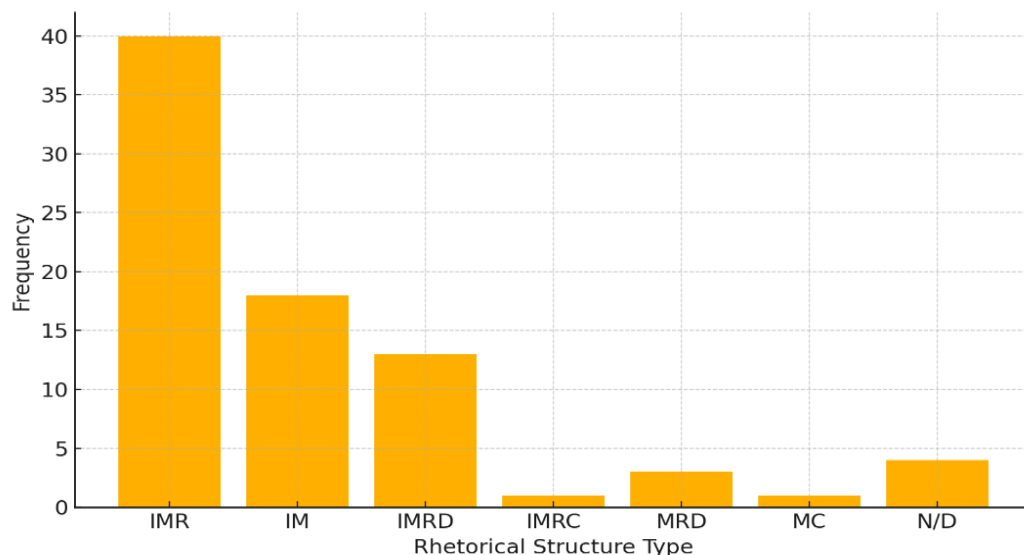
As Table 4 above clarifies, the analysis of the ATU research article abstract has yielded six variations of the IMRD framework. To begin with, the famous IMRD structure is present in only 13 abstracts (16.25%) of the

data collected. This is again in sharp contrast to the findings of Swales (1990). The main rhetorical structure present in the ATU article abstracts is IMR, with a count of 40 (50%), which is advocated by the number of discussion sections presented in Table 3. The second rank goes to the IM structure, with a mere count of 18 (22.5%). The three least frequent structures are IMRC, MRD, and MC.

To offer a clearer picture of the overall rhetorical structures used in the abstracts, Figure 3 presents the frequency of distinct structural types observed in the corpus. The IMR structure emerges as the most common, followed by IM and IMRD. Notably, full adherence to the IMRD model is found in only a small portion of the dataset (16.25%). A few abstracts did not conform to any established structure, further underscoring the rhetorical inconsistency across publications.

Figure 3

Frequency of Rhetorical Structure Types in ATU Abstracts



As the results of these two tables demonstrate, the answer to the first question of the study on the degree of the congruence of the ATU article abstracts with the IMRD framework seems to be “very little.” In fact, less than 15 percent of the corpus showed IMRD structure, while a considerable number of the articles missed the discussion section.

Question 2: What are the generic similarities and differences among ATU RA abstracts based on the IMRD model in different fields of study?

The second question of this research project looked at the generic similarities and dissimilarities of the ATU abstracts in different fields of study. The results of the analysis related to this question are presented in Table 5 below.

Table 5*Rhetorical Structure Types and Token based on Journals*

Journal	Structure	Count
TRALL	IMR	5
	IMRD	3
QKS	IMR	2
	IMRD	2
	IM	2
	MRD	3
SSQ	IMR	2
	IM	5
	IMRD	3
LTR	IMR	2
	IM	5
	IMRD	2
IJMS	IM	5
	IMR	4
	MR	1
NMS	IMR	9
	IMRD	1
JMSD	IMR	8
	IMRC	1
	IM	1
QCCPC	IMR	8
	IMRD	2

As the table above shows, the prevalent IMR structure is the one that enjoys a high popularity among the authors of the articles in the journals *New Media Literacy*, *Management Studies in Development and Evolution*, and *Counseling Culture and Psychotherapy* with 9, 8, and 8 cases, respectively. However, it is interesting that despite the general popularity of IMR, it is the more concise IM structure that is favored the most in the more industrially-oriented *Industrial Management Studies Journal* ($n=5$). The reason can be that these articles have been mostly on proposing models to improve management rather than doing fieldwork and collect data and because of this, no results are deemed necessary to be included in the abstracts.

Based on the discussions above, the similarities and differences between different journals from different fields of study published in ATU are clear. To statistically examine whether the rhetorical structure types are evenly distributed across journals, a Chi-square test of independence was conducted. The test revealed a statistically significant association between journal and rhetorical structure type, $\chi^2(21, N = 80) = 44.03, p = 0.002$. This finding suggests that the distribution of structures such as IMR, IM, and IMRD varies meaningfully by discipline or editorial convention. Table 6 displays both the observed and expected frequencies of each structure type across the journals. These findings support the argument that disciplinary genre norms and institutional practices influence abstract composition, reinforcing the need for field-sensitive academic writing instruction. Additionally, Cramér's V was calculated to assess the strength of association between journal identity and rhetorical structure type. The result ($V = 0.43$) indicates a moderate association between the two variables (Cohen, 1988), suggesting that the variation in abstract structure across journals is not only statistically significant but also of meaningful strength.

Table 6*Observed and Expected Frequencies of Rhetorical Structure Types across Journals*

Journal	IMR (Obs)	IMR (Exp)	IM (Obs)	IM (Exp)	IMRD (Obs)	IMRD (Exp)	Other (Obs)	Other (Exp)
IJMS	4	5.06	5	2.28	0	1.65	1	1.01
NMS	9	5.06	0	2.28	1	1.65	0	1.01
JMSD	8	5.06	1	2.28	0	1.65	1	1.01
QCCPC	8	5.06	0	2.28	2	1.65	0	1.01
TRALL	5	5.06	0	2.28	3	1.65	2	1.01
QKS	2	4.56	2	2.05	2	1.48	3	0.91
SSQ	2	5.06	5	2.28	3	1.65	0	1.01
LTR	2	5.06	5	2.28	2	1.65	1	1.01

Note. Observed (Obs) and expected (Exp) frequencies are shown for each rhetorical structure type. "Other" includes IMRC, MRD, MC, and N/D categories. Expected values are based on the assumption of independence between journal and structure type.

These findings confirm that disciplinary genre norms influence how authors structure their abstracts. IMR is most common across the humanities, while more specialized or technical disciplines adopt more concise formats. Discussion moves are more common in fields dealing with interpersonal or qualitative inquiry. These structural differences suggest the need for genre-sensitive academic writing instruction that acknowledges the rhetorical expectations of different scholarly communities.

Moreover, the qualitative analysis of the data was also conducted based on the sample papers which reflect various rhetorical structures, including research objectives, methodologies, results, and implications, demonstrating how to effectively communicate academic research in the context of Iranian studies. When analyzing the findings of the studies from ATU using qualitative analysis, several rhetorical strategies, including move embedding, reversal, and omission were identified. Initially, in the abstracts and excerpts, there is a clear embedding of comprehensive moves that combine background information with research objectives. For example, in a sample study on e-learning, the authors don't merely present results; they embed the implications of these outcomes within the introduction itself. This creates a narrative that flows smoothly, integrating the purpose of the research with the context, thereby enhancing readability and understanding. Here, the move of introducing the topic is embedded with an explicit statement of the objectives: *"This study investigated the influence of e-learning platforms on student academic performance"* ...

Reversal was also observed in the structure of arguments presented in the conclusion sections. Often, the findings were framed in a way that challenged preconceived notions or commonly held beliefs about educational technologies. For instance, the assertion that e-learning correlates with improved academic performance may reverse the initial skepticism regarding technology's impact in traditional settings. This move is evident in the following excerpt from the study: *"This suggests that integrating technology into the educational framework could enhance learning experiences..."*. All the evidence here demonstrated a shift from skepticism to advocacy for technology indicates a reversal in the perception of educational tools.

Finally, omission as another important move was strategically used to focus on the most relevant findings without overwhelming the reader with excessive details. For instance, a qualitative study on urban migration focused primarily on socio-economic factors while omitting a broader discussion about cultural influences, which could be seen as less pressing in the context of the findings. Here is an excerpt from the study: “Utilizing both qualitative interviews and quantitative census data reveals that socio-economic factors... are primary drivers of migration”. Through this piece of information, the authors omitted other potential influencers of migration, thereby sharpening the focus of their argument and making the findings more impactful.

6. Discussion

The results of this study show that the rhetorical structure of research article abstracts written in Persian and published in journals of Allameh Tabataba'i University is notably different from the standard IMRD model that was initially supplied by Swales (1990). An indication of a departure from the recognized global academic standards is the fact that the majority of abstracts do not contain a Discussion section (only 21.25 percent of abstracts contain one). Despite the fact that certain components of the IMRD form, particularly the Introduction and Method sections, are significantly more popular than others, this assumption continues to be correct. According to the findings of Hasrati et al. (2010), Persian abstractions usually varied from standard structures such as IMRD or CARS. Furthermore, the abstract was commonly condensed into a single, one-move funnel, which lends credence to the conclusion that this is the case. The findings of this study suggest that Iranian universities continue to make use of unusual methods when it comes to the composition of abstracts.

The discovery that the IMRD structure was only present in 16.25% of the abstracts that were reviewed lends credence to the idea that the rules for writing in academic publications written in Persian do not always coincide with those guidelines for international journals written in English. It appears that an inadequate model was developed, maybe as a result of institutional regulations or the writers' lack of expertise of the genre, as evidenced by the increased predominance of IMR and IM structures. This observation is in agreement with the findings of Santos (1996), who discovered that the criteria for technical writing and the actual authoring of abstracts are significantly different, particularly in places where English is not the primary language. Again, as Kazemi (2025) found out No significant nativeness effect emerged in any field. A clear disciplinary gap was found: Applied Linguistics authors used verbal nominalization more frequently and with greater rhetorical sophistication than Medical Sciences authors. These findings underscore the role of disciplinary conventions—rather than author nativeness—in shaping nominalization use. Pedagogically, writing instructors should tailor instruction on nominalization to discipline-specific norms rather than assume a universal “native-writer advantage.”

There could be a lack of comprehension regarding the rhetorical value of the Discussion move, or it could be the result of local editing preferences that prioritize short, data-driven observations over more detailed, interpretive commentary. Both of these may have contributed to the removal of the Discussion move. Conventions of discipline and standards that are peculiar to a journal have a considerable impact on the structuring of discourse.

Considering that there are multiple diverse forms of abstract structures that occur in other domains, the chi-square test of independence and a moderate Cramér's V value show that this assumption

is valid. More frequently than other fields, such as management or information science, the fields of linguistics and counseling, which are primarily concerned with qualitative or interpretive research, utilized Discussion sections. The results showing that certain fields place a higher priority on particular rhetorical gestures than others lend credence to Doro's (2013) argument that abstract writing varies from one field of study to another. In their study, Marefat and Mohammadzadeh (2013) discovered that Persian literature abstracts, in general, did not include any methodological information or debates, instead focusing mostly on the findings and subjects. The research that they conducted demonstrates that this discovery exemplifies the unique characteristics of abstract creativity across a wide range of academic fields. Kurniawan and Saliba (2021) found out that although journal indexation is often regarded as a marker of prestige or scholarly rigor, the data suggest that it has limited bearing on abstract writing practices, potentially challenging assumptions about its effect on academic writing standards.

It is possible that the author's history and education are also factors that influence these trends. If students do not have sufficient knowledge of genre, it may hamper their capacity to properly exhibit critical rhetorical methods. This is especially true for strategies such as Discussion and Conclusion, which require interpretation in relation to the evidence. It was Lon et al. (2012) who brought up this particular issue. Due to the fact that the majority of authors in the current corpus were either early-career researchers or possessed a Master of Arts degree, this may provide an explanation for the frequent lack of the Discussion section. It is possible that rookie scholars are not aware of worldwide norms for the composition of abstracts (Al-Khasawneh, 2017). This is because academic writing programs do not provide education in rhetoric. It is especially relevant to consider this in the context of educational institutions where Persian is the predominant language of instruction. Consequently, the findings of Lau (2004) reveal that Taiwanese student abstractions have structural flaws as a result of poor linguistic and cognitive development, which further corroborates this viewpoint. One viable explanation could be that, as Nguyen (2025) pointed out, while acknowledging certain similarities, international scholars demonstrated more nuanced organizational choices and rhetorical strategies, reflecting a deeper engagement with authorial voice. These point to the shaping role of disciplinary norms, discourse conventions, and socio-cultural contexts in abstract writing, offering useful guidance for ESP instructors, students, and researchers seeking to refine their academic communication pertinent to their own folds of study.

The results of this research highlight the growing importance of teaching writing in a genre-based manner in English for Academic Purposes (EAP) and its Persian academic writing counterparts (Hyland, 2003; Swales & Feak, 2009). Over the past few years, there has been a growing number of people who have expressed interest in studying language arts. When it comes to assisting Persian-speaking scholars in publishing their work in international forums or adhering to globally recognized academic communication norms, instructional programs need to specifically address the rhetorical and linguistic parts of abstracts. There is a possibility that the conventions of scholarly communication around the world are no longer recognized as being separate from the Persian academic writing (Martin, 2003; Wang & Tu, 2014). The dissemination of academic information across the world is becoming increasingly widespread. It is of the utmost importance to underline that this does not suggest that we should blindly follow techniques that are effective in every situation. The results of the study suggest that genre training should avoid tight regulations and instead support a flexible strategy that can respond to advancements in the area and increase rhetorical awareness.

Additionally, this research makes a contribution to the continuing discussion over the applicability of rhetorical frameworks such as IMRD. According to the findings of our research, the utilization of these models is highly impacted by the cultural norms of geographic regions, the language of publication, and the traditions that are peculiar to the discipline. Among one thousand global abstracts, Wang and Tu (2014) found that the IMRD model was the most prevalent; however, our results suggest that this is not the case. Consequently, this gives rise to a large theoretical inquiry over the application and effectiveness of international norms, which are primarily generated from English-language corpora, in other languages and academic fields (Samraj, 2002; Hyland, 2004). The findings presented here support for a more contextualized understanding of genre, which would facilitate increased language use for global participation while also developing awareness of the academic ecosystems that exist within one's own community.

The rhetorical structure of research article abstracts written in Persian and published in journals of ATU showcased significant deviations from the traditional IMRD model. Several factors contribute to this distinction, including institutional training, academic maturity, and editorial policies. The educational environment at ATU, along with specific training received by scholars, emphasizes the importance of narrative and contextual embedding over strict adherence to the IMRD format. Scholars often receive guidance to include broader theoretical frameworks and regional context, which can lead to richer, more descriptive abstracts. The academic maturity of researchers affects their writing style and approaches in articulating findings. Established scholars may prioritize narrative elements that reflect their understanding of the academic field, leading to an abstract structure that tells a comprehensive story rather than strictly following the IMRD paradigm. This maturity can also manifest in unique ways to address target audiences, making abstracts more accessible for Persian-speaking scholars. Editorial policies of journals at ATU may favor flexibility in abstract construction, allowing authors to present their work in ways that align with cultural and disciplinary norms. This flexibility often results in abstracts that prioritize context, significance, and comprehensive findings over the rigid structure of the IMRD model. Journal preferences for cultural resonance and narrative flow may also account for this divergence.

Finally, the outcomes of this study might have implications for pedagogical practices and educational institutions in Iran that are concerned with academic writing. The absence of full IMRD frameworks, particularly the frequent omission of the Discussion section, highlights the importance for instructors, especially those at the outset of their research careers and graduate students, to deepen their grasp of academic genres. These findings highlight the importance of systematically incorporating genre-based teaching into the academic writing curriculum, particularly within graduate programs that are interdisciplinary in nature. It is essential, according to Hyland (2003) and Swales and Feak (2009), to train pupils in a manner that takes into account the many different types of writing that they might come across in their lives. Not only does this make it possible for students to appreciate the rhetorical requirements of academic discourse, but it also provides them with the required skills for publication on both the local and international levels.

It is possible that editors of academic journals and institutions would take into consideration the possibility of adopting specific author requirements that are in line with academic standards and encourage greater rhetorical expressiveness in abstracts. It is possible that these laws may clarify expectations and bring about a reduction in disparities in abstract composition. By developing writing workshops and mentoring programs that give researchers with organized samples from high-impact

papers and train them on how to compose an abstract in the most effective manner, institutions could reap advantages. Furthermore, the findings require editors and reviewers of journals to conduct an in-depth analysis to determine whether or not the editing standards they currently use allow for brief abstract formats and whether or not these laws could be altered to encourage more detailed rhetorical writing. The ability to communicate discoveries in formats that are globally recognized is essential for attracting attention and attaining influence, and this is especially critical in light of the fact that Iranian academia is becoming increasingly international. Several important steps are required, according to the findings of the study: In order to develop their careers and participate with the world community, Iranian scholars need to align themselves with global academic discourse. At the same time, they must also protect and value the rhetorical traditions of their home country.

7. Conclusion

The findings of this study revealed both congruence and incongruence between the research article abstracts published in ATU and the well-known IMRD framework. The findings might call into question the necessity of a rigid framework for writing academic abstracts, in that the nature of research and reporting in some disciplines is different from the ones used to devise IMRD (or in fact, any rhetorical structure based on a corpus with limited interdisciplinary coverage). As Li (2022) put forth, there seems to be an emerging trend toward a more informational, concise, and reader-oriented style in abstract writing, with significant implications for academic composition and English for Academic Purposes (EAP) pedagogy. Therefore, either the writers should be given some freedom to write their abstracts in a way appropriate to their research project, or a more inclusive view be taken up in analyzing and proposing global rhetorical structure frameworks, or both.

Moreover, in line with the suggestion of the previous studies, this study also proposes the need to teach rhetorical structure of abstract in academic writing courses in Iran, with a focus on familiarizing students with the IMRD framework, including examples from established literature, so that the authors of the articles include as much information as required by an academic abstract. To address the cultural context in scientific writing, this module would encourage discussions on how to maintain narrative richness while adhering to the IMRD format. Introducing established rubrics can also provide clear criteria for evaluating abstracts based on the IMRD format. Workshops can explore successful abstracts from Iranian contexts and identify best practices for blending cultural relevance with adherence to international standards. Despite the methodological rigor in conjunction with meticulous care taken by the authors, the article at hand focused only on a limited set of articles and journals. The future research projects can include more data in their corpus. Moreover, only Persian articles were included in the corpus of this study. Future studies can use abstracts written in English and other languages along with the Persian ones and compare them based on the language of the abstracts. Finally, the article at hand focused only on the articles published in ATU, while future works of research can rely on more diverse set of universities as sources of article abstracts.

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Authors' Contributions

All authors have conducted the study, collected data, analyzed and interpreted the data, and written up the manuscript.

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Competing Interests

The authors declare that there is no conflict of interest.

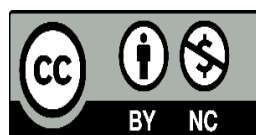
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