MACRO-STRUCTURING PATTERNS IN APPLIED LINGUISTICS RESEARCH ARTICLES; EVIDENCE OF GENRE AWARENESS

Reza Khani¹, Khalil Tazik²

English Department, University of Ilam, Iran
*E-mail: Khani.reza2016@gmail.com; Phone number: +989183411306
E-mail: khaliltazik@gmail.com; Phone number: +989167261679

Abstract. According to Swales (1990), the main purpose of genre studies is to raise awareness about the prototypical structure of academic texts. After the instruction of genre analysis, it was supposed that some changes might happen in the academic writing. This genre impact/awareness was examined in different studies. Along with the studies done, this study tended to examine the sectioning patterns of the Applied Linguistics research articles (RAs) over 40 years of publication and evidenced the possible changes. With a corpus of 1366 RAs, it was found that sectioning patterns of the RAs was evolved through the years (from 11.35% in 1976-1985 to 70.18% in 2006-2015. These changes could be related to the contributions of genre analysis and its integration into language teaching regulations. Therefore, genre analysis is shown to be a promising field for attention in the Applied Linguistics areas of investigation.

Key words: Genre Analysis, Applied Linguistics, Macro-Structuring Pattern, Swalesian Model

1. INTRODUCTION

Genre studies, which commenced since Aristotle’s Rhetoric, have backed on vogue in the last two decades (Motta-Roth & Heberle, 2015). Since the introduction of genre analysis by Swales (1990), tremendous effects of genre studies on the academic pedagogy, writing research papers, and language pedagogy have been observed. Swales (1990, 2004) considers the notion of genre as an effective approach for teaching writing and research English. Flowerdew (2015) believes that "Swales's attention in his publications and his reception in the Applied Linguistics research world has been more on the discourse analysis side of his work than on pedagogy" (p. 1). Research article as the prestigious academic genre was under the focus of much of the Swales's work. Organization, structure and format of this academic genre along with its lexi-co-grammatical patterns were strongly researched in the genre studies (Flowerdew, 2015). The Swalesian stance towards the priorities of structure of RAs to the grammatical patterns and phraseologies is a consciousness-raising approach which creates a space for the students to know that “there are standard grammatical and phraseological patterns, as used by native-speakers, but that such patterns are not always insisted upon in international journals” (Flowerdew, 2015, p. 9).

The studies done in this area were mostly built on the three influential theoretical frameworks: the British ESP School (Swales, 1990), the North-American New Rhetoric...
Approach (Bazerman, 1988), and the Sydney Systemic Functional School (Hasan, 1989).
The ESP perspective toward genre was mainly relied on the analysis of linguistic features
and discourse analysis of academic research articles (RAs) (Swales, 1981, 1990). These
orientations have had tremendous effects on the ESP, in general, and the teaching of writing
to ESL graduate students, in particular (Jordan, 1997). Researchers working in this school
of genre studies (e.g., Bhatia, 1993, 2001; Dudley-Evans, 1986, 2000; Hyon, 1996) tended
to use a social construct genre to provide a framework for analyzing the academic discourse
(written or spoken) and building a device for classifying the texts with common goals and
purposes within a certain field of activity (Bruce, 2008). Abstract, Introduction, and
Discussion sections of RAs, thesis, and dissertations, grant proposals, conference proposals,
graduate seminars, and academic lectures are some of the examples of genre classifications
analyzed for ESP purposes (Paltridge, 2007). The central key concept in classification of
these genres was 'communicative purpose' (Swales, 1990). In fact, Swales (1990) emphasized
that shared communicative purposes rather than similarities of forms determine that
whether a text belongs to a particular genre of not.

In ESP frameworks for genres, text-internal and external features as well as linguistic
encoding are analyzed in relation to the rhetorical moves and steps in addition to the
linguistic features and structures related to the moves. Bhatia (2001) defines moves as "rhetorical instruments that realize a sub-set of specific communicative purposes associated
with a genre" (p. 84). Linguistic evidence, general communicative purpose, and
comprehending the text are the key factors in determining the moves of a text. Swales (1990)
introduced IMRD (Introduction, Method, Results, and Discussion) as the macro moves
structuring an academic research article. Bruce (2008) regarded these sections as the
macro-structuring patterns in organizing a research paper which provide a focus on the
organizational and procedural elements of written discourse.

The second approach to genre analysis was Systemic Functional Approach (SFA)
which is largely based on the work of linguists such as Halliday (1978, 1994), Hassan
(1989), Halliday and Hassan (1989), and Martin (1984, 1992). SFA concerned with the
relationship between language and its functions in a social setting (Hyon, 1996).
Regarding this approach, linguistic forms are shaped by field (the activity going on),
tenor (the relationship between participants), and mode (the channel of communication)
as the key factors surrounding social context. Bruce (2008) contends that each of these
semiotic variable (field, tenor, mode), relates to a specific component of the semantic
structure, and thereby to the systems of the lexico-grammatical features of a text. Therefore,
the SFA to genre describes texts in terms of schematic structure and linguistic (lexico-
grammatical) features such as lexis, cohesion, syntax and types of reference.

New Rhetoric genre approach emerged to have an orientation towards the non-literary
texts and tended to probe more than textual regularities in literary and academic works
(Devitt, 2004). The researchers in this approach to genre (Freeman and Medway, 1994)
focus on the tying of the regularities in form and content of discourse to a broader spheres
of social and cultural comprehension of language in use. Therefore, as Miller (1984)
discusses genre can be understood as a form of social action by a group of social actors
for meeting their rhetorical needs. He also viewed genre as rule-governed which is
distinguishable from its forms and stands as a culture. In other words, genre in New
Rhetoric Approach mediates the individuals and society which is classified by its
rhetorical practices rather than its structure and content. As a result, understanding genres
requires understanding the culture from which the genre is derived and constituted an
independent culture.
The three theoretical views to genre have been accompanied by many studies analyzing the academic and professional writing, e.g., Dudley-Evans (1988, 2000); Swales (1981, 1990); Bhatia (1993, 2001); Hyon (1996); and Hyland (2002) in ESP genre Approach; Martin (1992); Martin and Rose (2003); Meurer (2004); Santos (1996); and Rose and Martin (2012) for SFA; Bazerman (1988); Devitt (1991); and Miller (1984) for New Rhetoric Approach to genre. The studies and trends in genre studies have had tremendous impact on the research and curriculum over different contexts and academic settings. Motta-Roth and Heberle (2015) noted that in Brazilian context it was accepted that the connection between linguistic form and social activity has changed the educational view towards language learning and teaching. They added that the adoption of social orientation to the language learning showed that the pedagogical focus should be directed towards the genre implications and move beyond the rote memorization of linguistic features. In terms of educational curriculum, Motta-Roth and Heberle (2015) pointed out that "the process of meaning production in texts – as the materiality of genres – became the privileged object of education" (p. 4).

Swales (1990) noted that the main purpose of genre studies is to raise awareness about the prototypical structure of academic texts. This genre awareness assists students to master different sets of text types and adapt their previously genre knowledge to the newly developed contexts (Russell and Fisher, 2010). To gain this aim, the students reassess their established socio-cognitive genre knowledge and revise their theories of genre in light of the context of situation (John, 2015). This destabilization of genre theories moves the students' understanding of text production from an interior cognitive process to a situated cognitive process found in the genres (Bawarshi, 2002). This rhetorical flexibility occurs in reading/writing processes over different disciplinary levels (Samraj, 2002). Therefore, as John (2015) emphasized, students are required to view texts as "living products of contexts, text assemblages, and circumstances, as well as writer and audience purposes" (p. 4) rather than anything as static and determined.

2. PURPOSE OF THE STUDY

The leading figures in genre studies have always been involved in theorizing and applying genre as pedagogical tool in different schools of genre. The presented pictures of genre theory in these schools have been idealized and mostly simplified. However, it has been adopted that there is a challenge and sometimes tension between theoretical principles and their real world practices. This can be because of complexity, dynamicity, and unpredictability of discourse. The purpose of this study is to focus on the real practice of genre studies and the changes of macro-structuring patterns of RAs in the Applied Linguistics area. The question of genre evolution is posed by the researchers such as (Miller, 2012) and received a positive answer from the other researchers (Sancho Guinda, 2015). The genre changes are made to fulfill the social and epistemological demands of the scientific discourse. Studies in the use of metadiscourse in abstracts (Gillaert, 2014), authors' voice in academic texts (Bondi, 2014), progress in the style, presentation and argument of scientific essays (Gross, Harmon, and Reidy, 2009) have shown these changes. Following these studies, this study tends to review the structuring patterns of research papers in Applied Linguistics journals over four recent decades. The development of genre studies and the parallel changes of article structures in the field of Applied Linguistics has not received due attention in the literature. The move/step analysis of articles, lexico-grammatical analysis of the texts, and the pedagogical/critical analysis of generic structure
of the texts were more in vogue than the macro-structuring patterns of the papers. The major aim was to take a genre awareness approach with different groups of writers in the process of academic article preparation (John, 2015). It is supposed that through the review of macro-structuring patterns of RAs in Applied Linguistics, the consequences of genre awareness can be more accessible to the researchers.

Sectioning (Macro-structuring patterns of) RAs was a common trend observed in most of the scientific journals. Swales (1990) introduced IMRD (Introduction, Method, Results, Discussion) as the most frequent and top-level sections which currently capitalized in RAs. Reviewing RAs, however, revealed some other sections such as Background (B), Findings (F), Analysis (A), Design (D), This Study (T), the Experiment (E), and Conclusion (C), Limitation (L), and Implication (I). In this study, the researchers identified the sectioning patterns used in each paper and reported the changes made in the structure of the papers over years. They used “none” if the papers did not have any specific pattern.

3. Method

3.1. Corpus

The corpus of this study consisted of systematic selection of 1366 RAs published between 1976 and 2015 in twelve Applied Linguistics journals: Modern Language Journal, Language Learning, System, Foreign Language Annals, Applied Linguistics, Studies in Second Language Acquisition, TESOL Quarterly, Language Testing, Applied Psycholinguistics, and Language Teaching Research. The list was in common with the top-most Applied Linguistics journals by the researchers such as Jung (2004), Egbert (2007), and Plonsky (2011). Review articles, comments, and RAs written in other languages such as French and German were excluded from the analysis. The coding process was done by the cooperation of four analysts (two current authors and two colleagues). Each paper was coded by the four individuals independently, and after completing the coding process, a session was held to check the correspondence of the coding among the four analysts. In cases of disagreement, the points of inconsistencies were reviewed and resolved by discussion. The current two authors made the final decisions.

3.2. Procedure for data collection and analysis

To start with, the electronic versions of RAs published from 1976 to 2015 were downloaded and saved in 40 folders. Each folder specified to one year and contained folders named after the journals from which the papers were derived. The papers were saved as a number and accordingly, the sectioning patterns of the paper were written after the code, e.g., a paper saved as number 3 in the folder of System journal had IMRD pattern. This coding procedure helped the researchers identify the cases of incompatibility. It should be noted that four analysts – two researchers writing this paper and two PhD students in Applied Linguistics- analyzed the texts and identified research variables. The analysts had ten three-hour sessions in which the purposes of the study were elaborated on, the common procedure for documenting the data was mapped out, and finally, a pilot analysis was conducted to ensure that the group had a correct interpretation of the purpose of the study. In the analyses, every researcher had to write the sectioning pattern of every paper in a separate word document and saved beside the paper. In the last session, it was determined that the researchers should submit the data to the senior researchers. The RAs were classified in four
decades: 1976-1985, 1986-1995, 1996-2005, and 2006-2015. The researchers analyzed the RAs for each decade and submitted the results to the senior researchers. Having received the data, the senior researchers reviewed the data and the cases of incompatibility were identified. To make correct decisions on these cases, a problem-solving session was held. The final decisions were always made after long discussions.

4. RESULTS

During the history of Applied Linguistics, there have been great changes in the sectioning of the articles. In the first and second decades of publication, unsectioned RAs were dominant. However, from the third decade of publication to the current issues in 2015, sectioned articles increased greatly. Reviewing 1366 RAs in 40 years indicated great changes in the sectioning patterns of the RAs. In the analysis of macro-structuring patterns of RAs, it was observed that the articles presented their content through two sections, three sections, and four and more sections. Results of the analysis indicated that 740 (54.18%) RAs did not have specific sectioning patterns while about 626 (45.82%) RAs published in the journal have followed macro-structuring patterns such as IMRDC, IMRD, IMFDC, etc. From among these 626 articles, 22 (3.51%) had two sections, 51 (8.15%) had three sections, and 553 (88.34%) had four and more sections. The distribution of sectioned articles over different periods of publications is given in Table 1.

<table>
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<tbody>
<tr>
<td>Two sections</td>
<td>N = 229</td>
<td>N = 286</td>
<td>N = 358</td>
<td>N = 493</td>
<td>626</td>
</tr>
<tr>
<td>Three sections</td>
<td>6</td>
<td>13</td>
<td>2</td>
<td>1</td>
<td>22</td>
</tr>
<tr>
<td>Four and more sections</td>
<td>10</td>
<td>16</td>
<td>14</td>
<td>11</td>
<td>51</td>
</tr>
<tr>
<td>Total</td>
<td>26</td>
<td>74</td>
<td>180</td>
<td>346</td>
<td>626</td>
</tr>
</tbody>
</table>

As it is shown in Table 1, just 26 RAs (11.35%) in 1976 to 1985 were sectioned articles while in the next decade of publication (1986-1995), 74 (25.87%) sectioned RAs were observed which showed an increase in the structuring of RAs. The trend of structuring RAs continued in the next years of publication. Between 1996 and 2005, 180 (50.28%) sectioned RAs were published among which 91.11% of them had four and more sections. In 2006-2015, 346 (70.18%) RAs presented their content in different sectioning patterns among which 96.53% of them had four and more sections with no two-sectioned pattern. The trend of using macro-structuring patterns across different periods of publication of the journal is presented in Fig. 1.
As it is visually depicted, the use of macro-structuring patterns has increased over different years of publication. This can be because of the writer's awareness of the RA structures and the journal requirements for structuring the papers. Another point implied from the data is the decline of two-sectioned and three-sectioned patterns and the increasing use of four and more sections in RAs over the years of publication. The occurrences of these patterns and their distributions are given in Table 2. In this table, because of the space limitations and to make the data manageable, those patterns which occurred just once or two times were excluded.

Table 2 Macrostructure of RAs published in Applied Linguistics journals (N= 626)

<table>
<thead>
<tr>
<th>Macrostructure</th>
<th>Years of publication</th>
<th>Total (%)</th>
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<tbody>
<tr>
<td>IMRDC</td>
<td>4</td>
<td>14</td>
</tr>
<tr>
<td>IMRD</td>
<td>3</td>
<td>8</td>
</tr>
<tr>
<td>IMR&amp;DC</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>IMR&amp;D</td>
<td>-</td>
<td>2</td>
</tr>
<tr>
<td>IMFDC</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>IMRD&amp;C</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>IMRC</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>IMD</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>IMFD</td>
<td>-</td>
<td>-</td>
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<tr>
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</tr>
<tr>
<td>IMF&amp;D&amp;C</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>IMF&amp;DC</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>ITRDC</td>
<td>1</td>
<td>1</td>
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<tr>
<td>ITRD</td>
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<td>-</td>
</tr>
<tr>
<td>ITR&amp;D&amp;C</td>
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<tr>
<td>ITFDC</td>
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<td>ITRC</td>
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<td>ITF&amp;D</td>
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<td>ITFD</td>
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<tr>
<td>ID*RD</td>
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<tr>
<td>IRDC</td>
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<td>1</td>
</tr>
<tr>
<td>MRDC</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>IRD</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>MRD</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>IDC</td>
<td>-</td>
<td>4</td>
</tr>
<tr>
<td>IMR</td>
<td>-</td>
<td>4</td>
</tr>
<tr>
<td>IMD</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>IC</td>
<td>-</td>
<td>10</td>
</tr>
<tr>
<td>ID</td>
<td>-</td>
<td>2</td>
</tr>
</tbody>
</table>

Note: I: Introduction; M: Method; R: Results; D: Discussion; C: Conclusion; F: Findings; A: Analysis; T: The Present Study or This Study; E: the Experiment; P: the Present Study; B: Background; *D: Design of the study; &: indicates that two sections are integrated, e.g., R&D: Results and Discussion.
As the data presented in Table 2 shows, among those articles which contained Introduction and Method as their first sections, IMRDC was the most commonly used pattern. It accounted for 23.16% of the total sectioning patterns identified in 626 sectioned RAs. IMRD, IMR&DC, and IMR&D which respectively occurred in 12.78%, 8.47%, and 5.11% of the RAs were the other frequently used patterns. Of those RAs which presented their procedures of conducting the study in a section entitled "The Study or This Study", ITRDC (4.47%) and ITRD (3.83%) were the most commonly used patterns. As the data also shows, it was observed that some papers used "Design of the Study" after Introduction section. IDRD with 0.48% was the most frequent of such patterns. Among those papers which did not have any separate section for explaining the method of their study, IRDC (0.64%) was the frequent pattern. MRDC, which was present in 1.12% of the sectioned RAs, was found to be the most frequent pattern among those papers which did not have Introduction sections. Of those three- and two-sectioned articles, IRD (2.08%) and RC (1.76%) were observed to be more frequent than others.

4. DISCUSSION

Findings of our study indicated that the field of Applied Linguistics has reached a relatively similar trend in sectioning RAs. The relatively similar sectioning patterns of RAs could be partly related to the relatively consistent discourse community with a relatively fixed communicative purpose. This similarity of communicative purpose which is regarded at the heart of genre analysis (Swales, 1990) has built somehow similar sectioning patterns among the Applied Linguists. This trend was more observed in recent two decades, especially after the introduction of genre analysis. Hyland (2004) suggests that some of the generic structures are more respected and publicly welcomed, the most important of which is IMRD enumerated by Swales (1990). Findings of our study indicated that this macro-structuring pattern has been the dominant pattern in the Applied Linguistics RAs. It seems that the disciplinary interest can lead to the manipulation of generic conventions and consequently dominance of IMRDC structure.

Regarding the diversification and hybridization of moves structures, Bhatia (2004) questioned the integrity of the moves structures and suggested a disconnection between the three traditions of genre analysis. Hyland (2004) related the genre variation to the sociocultural changes occurred in the disciplines such as the ones suggested by Swales (2004): generification, commodification, technology, and globalization. Sancho Guinda (2015) exemplified graphical abstract as an instance of this variation. From this point of view, inter-generic impacts might be produced, or, highly specialized forms are possibly engendered. Findings of our study support both suppositions: intra-disciplinary variations have witnessed the genre evolution and produced some local forms for the Applied Linguistics RAs.

Our analysis of the sectioning patterns of the RAs in different journals of Applied Linguistics is an attempt to reflect the genre effects on the academic writing but evidently it is not exhaustive. We have offered that among different patterns used in structuring the RAs in the field, researchers tend to use some patterns more than others. This tendency is valuable when we view it from a chronological perspective: dominance of unsectioned RAs in the first decade of publications and the dominance of sectioned RAs in recent decades. These changes could be related to the contributions of genre analysis and its integration into language teaching regulations. Therefore, genre analysis is shown to be a promising field for attention in the Applied Linguistics areas of investigation. Further
research on other properties of academic texts (RAs in particular) can more visibly indicate the impacts of genre analysis on academic writing.

REFERENCES


