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تحلیل نیازهای گفتمانی و صوری دانشجویان روانشناسی و جامعه شناسی

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چکیده

درس هایی تحت عنوان *انگلیسی با اهداف ویژه* به منظور آموزش زبان به دانشجویان تمامی رشته‌های دانشگاهی ارایه می شود. در عین حال تلاش هایی در جهت تعیین ویژگی های خاص زبان در هر رشته دانشگاهی و به منظور بهینه سازی و ارایه واحدهای زبان تخصصی با صرف حداقل هزینه و زمان، برای دستیابی به توصیف زبان تخصصی و تحلیل نیاز دانشجویان شده است.

هدف اصلی از این تحقیق یافتن پاسخ هایی برای دو پرسش زیر است: الف) نیازهای گفتمانی بیانی – کلامی و صوری دانشجویان روانشناسی و جامعه شناسی چه هستند؟ ب) مواد آموزشی که توسط سمت برای آموزش زبان تخصصی برای این دو رشته تهیه و تدوین شده، تا چه حد پاسخگوی نیازهای این دانشجویان است؟

به منظور پاسخگویی به پرسش های فوق چهارصد و هشتاد پاراگراف به صورت اتفاقی از کتب و مجلات انگلیسی و تخصصی در رشته های روانشناسی و جامعه شناسی از یک سو و همین تعداد از کتاب‌های زبان تخصصی «سمت» از سوی دیگر انتخاب شد. تحلیل دویست و چهل پاراگراف انتخاب شده از کتاب ها و مجلات تخصصی نشان داد که نقش های توضیحی، تعریفی و دستور العملی بیشترین میزان فراوانی را در متون روانشناسی و نقش های توضیحی و تعریفی و آماده سازی متداولترین نقش های متون جامعه شناسی بودند.

تحلیل آماری اطلاعات نشان داد که نیازهای بیانی- کلامی این دو دسته از دانشجویان در مجموع تفاوت معناداری ندارد، ولی این نیازها هنگامی که نقش های بیانی- کلامی و ریز نقش‌های آنها به صورت انتخابی با یکدیگر ترکیب شوند متفاوت است.

در خصوص دومین پرسش تحقیق، مقایسه میزان فراوانی نقش ها در روانشناسی و جامعه شناسی با نقش های مشاهده شده در پاراگراف های انتخاب شده از کتاب های «سمت» نشان داد که هیچ یک از کتاب‌های انگلیسی تخصصی (کتاب های زبان تخصصی برای دانشجویان روانشناسی و جامعه شناسی) از لحاظ گفتمانی سازگار با نیازهای دانشجویان این دو رشته نمی باشند.

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Discoursal and Formal Features of Psychology and Sociology Texts (A Case of Text Analysis for ESP Purpose)

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ABSTRACT

Courses entitled English for Specific Purposes (ESP) have been developed for the purpose of teaching particular language and/or communicative skills to students taking university and other advanced academic courses. The effort to determine the specificity of the language in each field of study, for optimizing and economizing ESP courses, has led to the development of a number of different approaches to language description as well as needs analysis.

The present study was conducted to find out: 1) what the rhetorical and formal features of psychology and sociology texts are, and 2) to what extent ESP materials prepared for the students at issue correspond to the requirements of English texts in these fields.

For this purpose 480 paragraphs were randomly selected from books and journals of psychology and sociology, and ESP materials for psychology and sociology students. The analysis of the paragraphs from the original texts revealed that the three most frequently used functions in psychology texts were description, definition, and instruction. The three most frequently used functions in sociology texts were description, definition, and preparation. The statistical analysis of the data also revealed that the rhetorical needs of the two groups of learners were different in certain areas. It was also found out that the ESP materials for psychology and sociology students were not compatible with the requirements of texts in the two disciplines.

Key Word: 1. Text analysis 2.Needs analysis 3.Rhetorical functions 4.ESP.

1.Introduction

The term needs analysis, when used in the context of language instruction, has usually meant specifying the aspects of language that particular groups of learners need to know. It is impossible for a variety of reasons, one of which is lack of time, to teach all of any language; some selection must take place. Recent trends in the description of scientific language, i.e., rhetorical analysis and genre analysis, have moved beyond the formal characteristics of language and focused on the way information is organized in the discourse which occurs within any given situation.

Research on the discourse characteristics of English for science and technology (EST) materials reveals that almost every field of science has its particular world of discourse; i.e., as the technical vocabularies vary from one field to another, rhetorical functions and discourse features, too, differ from one field to another. This fact has interested many scholars in the investigation of different fields of science to get insight into their world of discourse and to establish the rhetorical structure of the text and its

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functions. Their intention has been to define and identify the language needs of ESP students, hoping that they become able to devise and prepare more effective and practical instructional materials.

The rationale behind any course of language for specific purposes is to cater for the needs of professionals and university students. Through the process of needs analysis attempts have been made to meet the varying language needs of many students in a more flexible and diversified approach to the syllabus design. However, ESP courses and their achievements have faced different types of problems. Roe and Jones (1975) refer to five sets of problems: problem of needs (also mentioned by Benesch 1996), problem of learners' low level of knowledge, problem of tactics, problem of specifying objectives, and problem of models-building.

The significance of background knowledge in comparison to the linguistic knowledge seems to be a controversial issue. For example, Cowan (1974) contends that as overall proficiency increases in the learner one can overcome difficulties in reading. Khajeie (1993) reports that in order to improve the ability to comprehend technical and general texts, one should emphasize improving general language proficiency.

One line of investigation has been devoted to examining the role of technical vocabulary in understanding specialized texts (Farrell, 1990; Farhadi, 1992; Rezaipour, 1994), or the role of word-formation rules as opposed to the definition of vocabulary meaning (Shahbazi, 1992).

There have been reports on learners' needs in academic listening (i.e. lecture). Some studies have focused on the linguistic and rhetorical functions of lecturers and learners' comprehension and note-taking (Flowerdew 1995). Others like Ferris and Tagg (1996) have considered the needs of learners for improving aural/oral skills and have found that instructors' requirements vary across institutions and disciplines.

Contribution of translation in improving reading comprehension of Iranian ESP learners is another line of investigation. Avand (1994) found that using the mother tongue in the instructional situation especially in teaching ESP materials is helpful.

The learners' awareness of rhetorical functions is an old issue put forward by Selinker et al. (1978), Flich and Anderson (1980), Weissberg and Bucker (1978), Widdowson (1983, 1984), and Abbasnejad (1993), to mention a few examples. Inability to understand and differentiate implicit and explicit information by non-native learners also has been mentioned by Selinker et al. (1975) and Shafiei (1997).

With regard to what others have done in the domain of ESP and to the process of needs analysis as a cornerstone of designing a course, as well as the importance of rhetorical functions, the present study was designed to examine the rhetorical needs of two groups of university students of social sciences, namely, psychology and sociology, and the linguistic forms used to realize rhetorical functions common to these fields of study. At the same time, the ESP course books published by SAMT for the students of these fields were examined in terms of rhetorical functions to see whether they are in consonance with the learners' needs identified at the first stage of the study. In this study, two questions were addressed: 1)What are the communicative needs of learners studying sociology and psychology in English, in terms of rhetorical functions and linguistic forms; and 2) To what extent the in-house ESP textbooks fulfill those needs?

2. Methodology

In order to find the answer to the first question, 240 rhetorical/physical paragraphs were randomly selected and examined: 120 paragraphs from different sources in sociology, and 120 paragraphs from different sources in psychology. As for the second question, 240 rhetorical/physical paragraphs were randomly selected: 120 from English

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for Students of Sociology and 120 from Readings in Psychology.

To analyze the needs of the learners in each field 'specific orientation' identified by Brindly (1989) was adopted. The model used for assessing the needs was the four-level model proposed by Tarone and Yule (1989), though the second and third levels of the model were the focus of concern, assuming the first level (global level) as defined by higher order administrators.

In order to identify the formal needs of students at the third level of Tarone and Yule's model, tense variation was examined as an obvious feature of the technical writings and as a problematic issue for non-native readers. The study followed Trimble's (1985) rhetorical function in its third level (Figure 1) and its modification proposed by Ghazi (1996) for analyzing the learners' needs at the second level (rhetorical level) (Figure 2). However, as the work proceeded, the researchers discovered some new functions and sub-functions, which were absent in the models suggested so far. The expanded version of rhetorical functions is presented in Figure 3.

Insert Figures 1, 2, and 3 here.

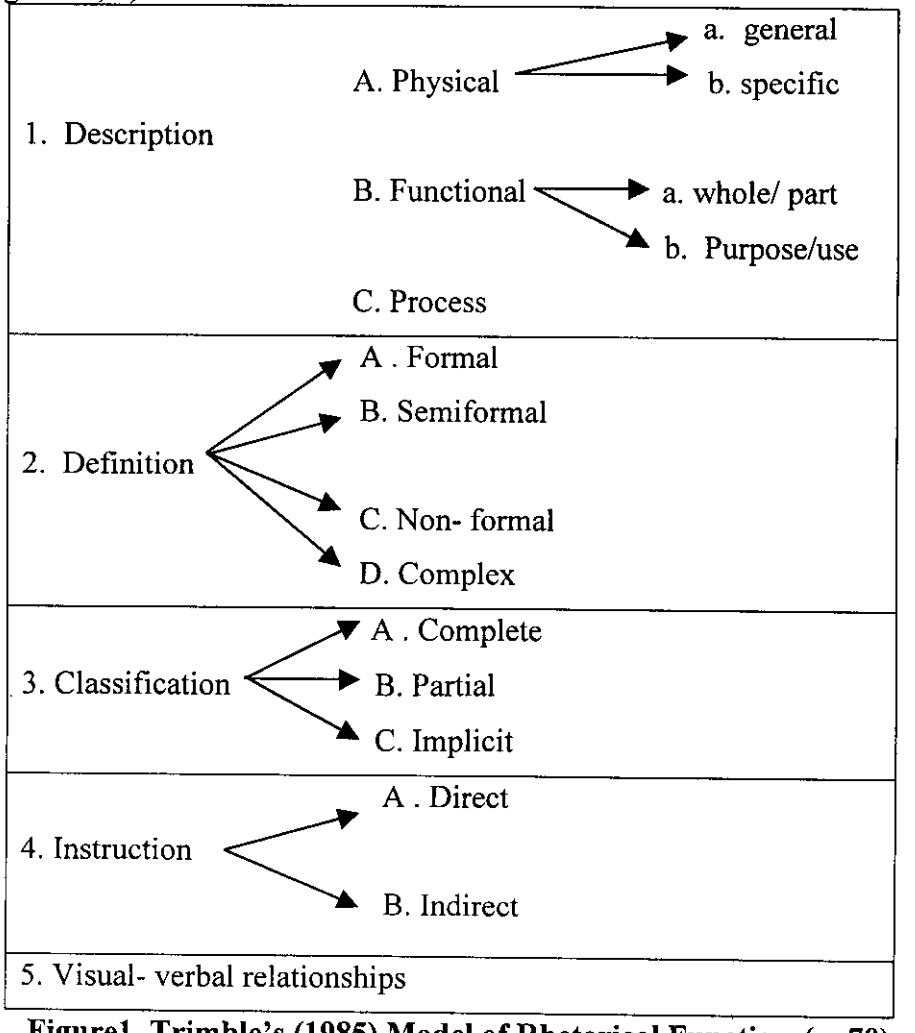

Figure1. Trimble's (1985) Model of Rhetorical Functions(p. 70)

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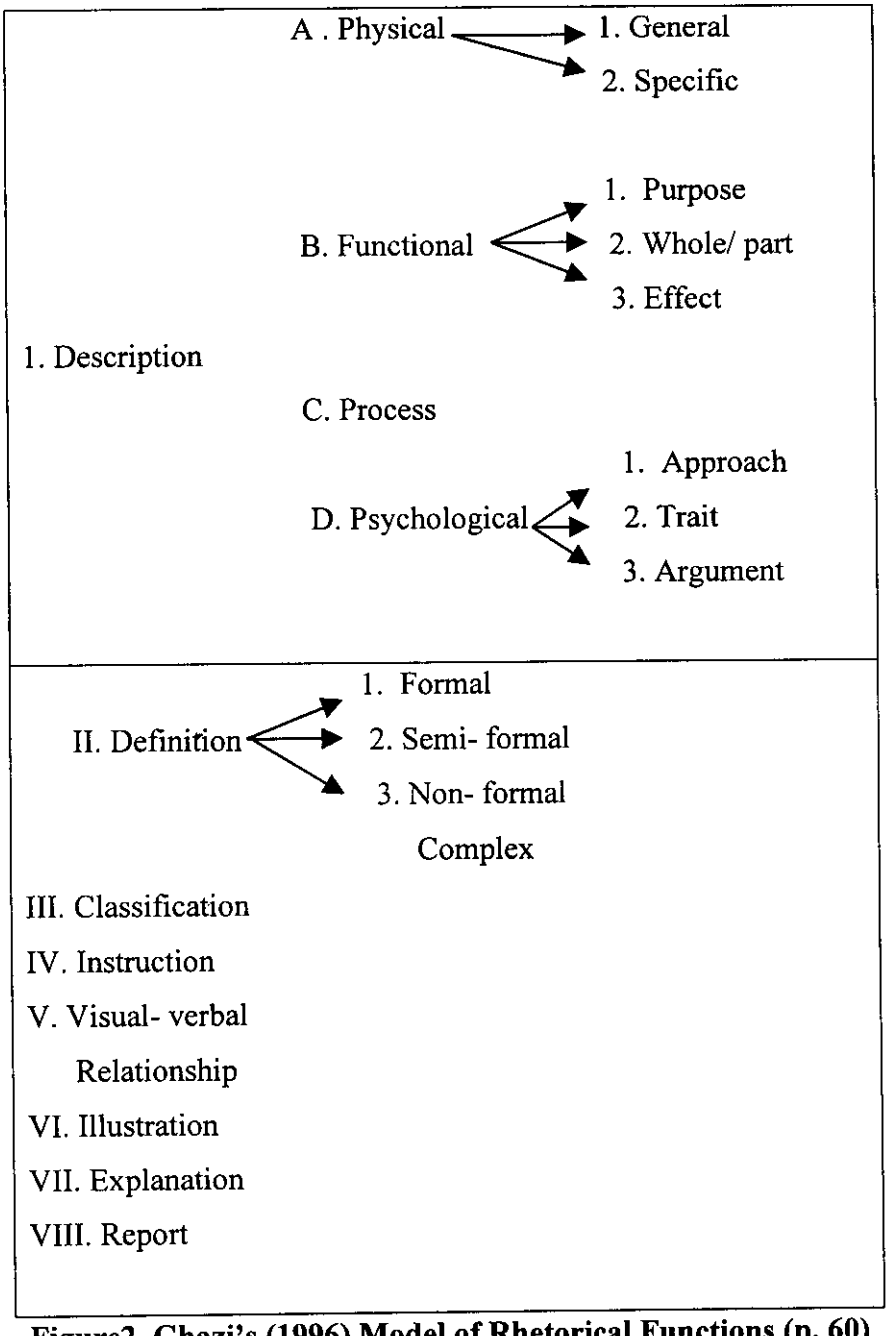

Figure2. Ghazi's (1996) Model of Rhetorical Functions (p. 60)

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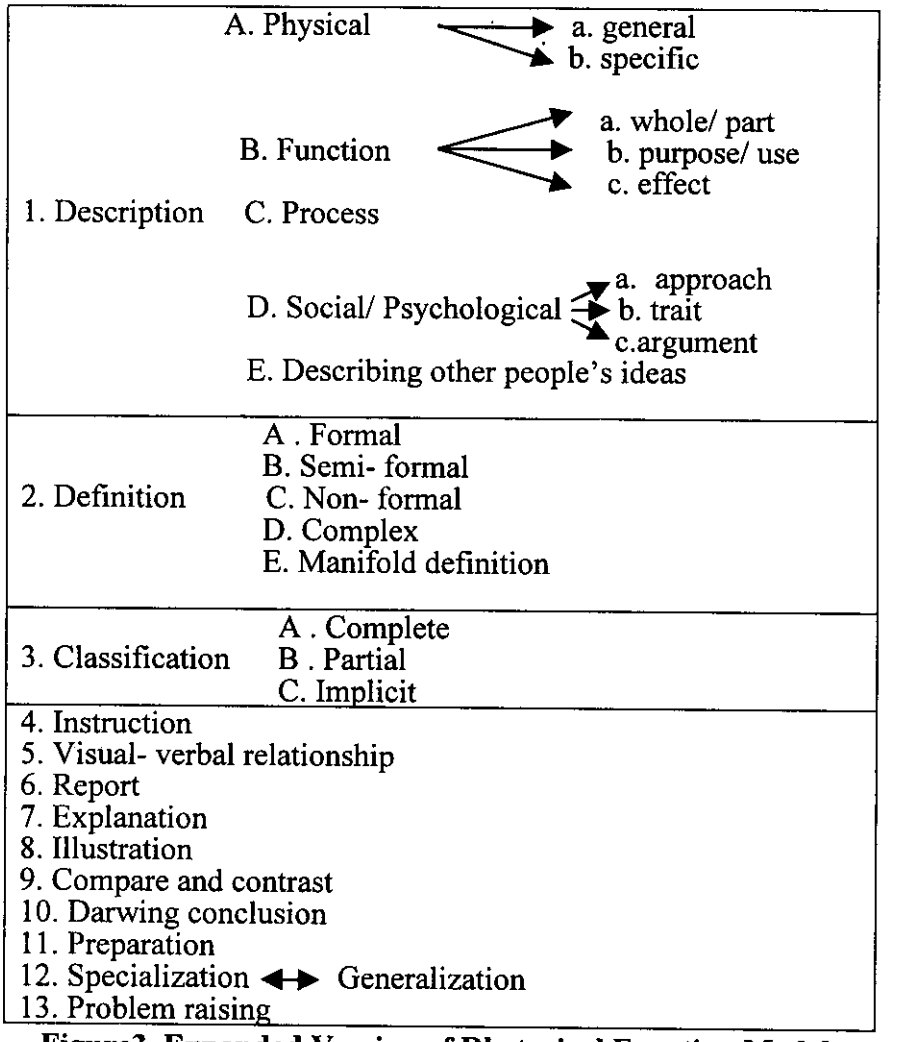

Figure3. Expanded Version of Rhetorical Function Model.

For the purpose of defining the discoursal needs of students of psychology and sociology, each and every original paragraph was assigned a function out of thirteen. The frequency of occurrence of each rhetorical function and its sub-functions was recorded. Later comparisons were made between psychology and sociology ESP texts and target materials in the two disciplines, in order to answer the second question, in terms of the frequency of observed rhetorical functions. Additional comparisons were made between the sociology and psychology target materials, and other selected patterns of rhetorical functions, based on their observed frequency of occurrence. The results of the data analysis are shown in Tables 1 through 4.

To see the pattern of tense variation in relation to the functions in question, all verbs used in the original paragraphs of psychology and sociology were listed in a six-category table. It is worth noting that only those paragraphs which had the first, second, or third frequency were examined from among the selected paragraphs.

The categories under which verbs were classified consisted of: 1) present, 2) past, 3) future, 4) passive (statives included), 5) modals, and 6) special case. The sixth category was established for those counterfactual verbs used, for example, in conditional sentences. The verbs listed under each rhetorical function in each field, and also those listed under each category for both fields were counted. The result of tense count is presented in Tables 5 and 6.

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3. Results

Rhetorical analysis of psychology target materials revealed that description, definition, and instruction were the three most frequently observed functions, including 50.83%, 20.24%, and 5% of functions respectively. Psychological description and function description were the most commonly used sub-functions of descriptive paragraphs (Table 1).

Function	Frequency	Percentage
1. Description	61	50.83
A . Psychological description	21	17.5
a. argument	8	6.67
b. trait	7	5.83
c. approach	6	5
B. Function	20	16.67
a. effect	12	10
b. whole/ part	5	4.17
c. purpose/ use	3	2.5
C. Process	12	10
D. Describing other people's	5	4.17
E. Physical	3	2.5
a. general	2	1.67
b. specific`	1	0.83
2. Definition	25	20.83
A. Complex	15	12.5
B. Semiformal	4	3.33
C. Formal	3	2.5
D. Manifold	2	1.67
E. Non- formal	1	0.83
3. Instruction	6	5
4. Visual- verbal relationships	5	4.17
5. Classification	4	3.33
A. Implicit	3	2.5
B. Partial	1	0.83
C. Complete	0	0.0
6. Compare and contrast	4	3.33
7. Explanation	3	2.5
8. Report	3	2.5
9. Specialization ◄► generalization	3	2.5
10. Illustration	2	1.67
11. Preparation	2	1.67
12. Problem raising	2	1.67
13. Drawing conclusion	0	0.0

Table1: Frequency of Rhetorical Functions of Original Psychology Paragraphs

The three most frequently occurred functions in sociology target materials were description, definition, and preparation, including 59.17%, 14.17%, and 5.83% of the paragraphs respectively. Among the 'description' sub-functions 'social description' and 'description of other people's ideas' were predominant (Table 2).

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Function	Frequency	Percentage
1. Description	71	59.17
A . Social description	36	30
a. trait	26	21.67
b. argument	8	6.67
c. approach	2	1.67
B. Describing other people's ideas	24	20.0
C. Function	7	5.83
a. Effect	5	4.17
b. purpose/ use	2	1.67
c. whole/ part	0	0.0
D. Process	4	3.33
E. Physical	0	0.0
2. Definition	17	14.17
A . Formal	7	5.83
B . Manifold	4	3.33
C.Complex	2	1.67
D.Non- formal	2	1.67
E. Semi- formal	2	1.67
3. Preparation	7	5.83
4. Visual- verbal relationship5	5	4.17
5. Drawing conclusion	4	3.33
6. Problem raising	4	3.33
7. Explanation	3	2.5
8. Classification	2	1.67
A . Partial	1	0.83
B. Implicit	1	0.83
C. Complete	0	0.0
9. Compare and contrast	2	1.67
10. Illustration	2	1.67
11. Specialization ↔ generalization	2	1.67
12. Report	1	0.83
13. Instruction	0	0.0

Table2. Frequency of Rhetorical Functions of Original Sociology Paragraphs

Rhetorical analysis of ESP paragraphs, however, showed dissimilar patterns of distribution. 'Description', 'report', and 'definition' as well as 'illustration' were the four most predominant functions observed in ESP psychology texts, including 39.17%, 14.24%, 9.13%, and 9.10% of functions respectively. 'Psychological description' and 'process description' were the most common in descriptive paragraphs of ESP psychology texts (Table 3).

In ESP sociology materials, 'description', 'definition', and 'report' were the most frequently observed functions, including 45.83%, 22.5%, and 8.33% of functions respectively. Among the sub-functions of 'description', 'social description' and

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Function	Frequency	Percentage
1. Description	47	39.17
A . Psychological description	25	20.83
a. approach	12	10
b. trait	9	7.5
c. argument	2	1.67
B. Process	13	10.83
C. Function	7	5.83
a. effect	4	3.33
b. purpose/use	2	1.67
c. whole/ part	1	0.83
D. Describing other people's ideas	2	1.67
E. Physical	0	0.0
2. Report	17	14.17
3. Definition	11	9.17
A. Complex	3	2.5
B. Non-formal	3	2.5
C. Formal	2	1.67
D. Semiformal	2	1.67
E. Manifold	1	0.83
4. Illustration	11	
5.Classification	9	9.17
A . Implicit	4	3.33
B. Partial	3	2.5
C. Complete	2	1.67
6. Preparation	9	7.5
7. Explanation	7	5.83
8. Specialization ↔ generalization	4	3.33
9. Problem raising Illustration	2	1.67
10. Visual- verbal relationships	2	1.67
11. Compare and contrast	1	0.83
12. Drawing conclusion	0	0.0
13. Instruction	0	0.0

Table3: Frequency of Rhetorical Functions of ESP Psychology Paragraphs

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'function description' occurred more frequently than other sub-functions (Table 4).

Function	Frequency	Percentage
1. Description	55	45.83
A . Social description	33	27.5
a.trait	20	16.67
b.approach	10	8.33
c. argument	3	2.5
B. Function	13	10.83
a. effect	12	10
b. purpose/use	1	0.83
c. whole/part	0	0.0
C. Describing other people's ideas	8	6.67
D. Process	1	0.83
E. Physical	0	0.0
2. Definition	27	22.5
A . Formal	11	9.17
B. Complex	9	7.5
C.Manifold	4	3.33
D.Semiformal	3	2.5
E. Non- formal	0	0.0
3. Report	10	8.33
4. Illustration	9	7.5
5. Classification	5	4.17
A . Implicit	2	1.67
B. Partial	2	1.67
C. Complete	1	0.83
6. Preparation	5	4.17
7. Specialization ◄► generalization	5	4.17
8. Explanation	3	2.5
9. Instruction	1	0.83
10. Compare and contrast	0	0.0
11. Drawing conclusion	0	0.0
12. Visual- verbal relationships	0	0.0
13. Problem raising	0	0.0

Table4: Frequency of Rhetorical Functions of ESP Sociology Paragraphs

The chi-square analysis of the frequency distribution of rhetorical functions revealed a significant difference (x^2 = 40.49, $p<0.05$, df =11) between the type and frequency within the two groups of data, ESP and original psychology texts. In the case of ESP and original sociology materials, too, the chi-square analysis of the frequency differences of functions yielded a significant difference ($x^2 = 35.02$, $p<0.05$, df =12) between the distribution of rhetorical functions.

A third chi-square analysis was conducted, assuming the $p<0.05$ level of significance, to examine whether the function distributions in psychology and sociology texts were significantly different. The result of the analysis showed no significant difference (x^2 = 18.25, df =12) in the frequency distribution of functions in the disciplines. This result made the researchers examine the frequency differences of various interactions of functions in the fields at issue. This was done to see whether the rhetorical needs of the two groups of learners were significantly different in the areas

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which were investigated. To this end a comparison was made between the two most frequent functions, i.e. description and definition. The chi-square analysis of the frequency of the occurrence of the two functions ($x^2 = 1.76$, $p<0.05$, df =1) revealed no significant difference.Other significant and insignificant results were also obtained from different patterns of functions. To see whether the learners' needs were different in different sub-functions, other chi-square analyses were conducted to compare the distribution of sub-functions.

The comparison of distribution of 'description' sub-functions yielded a significant difference ($x^2 = 29.06$, $p<0.05$, df =4). Somewhat similar results were found for definition sub-function ($x^2 = 12.12$, $p<0.05$, df =4). The examination of tense, voice, and modals in the three most frequently observed functions in the fields revealed that the use of present tense in all three functions in both fields outnumbered the other five categories (Table 5). The frequency of simple present in all cases was predominant (Table 6). The passive voice was the next most frequent category observed in all functions in both fields (Table 5).

Function	Present	Past	Future	Passive	Modal	Special case	Total	
Psychology	Description	65.76%	9.6%	2.35%	11.95%	9.96%	0.36%	552
		363	53	13	66	55	2	
	Definition	75.63%	4.06%	3%	11.67%	4.56%	1.01%	197
		149	8	6	23	9	2	
	Instruction	50%	1.61%	6.45%	25.8%	12.91 %	3.22%	62
		31	1	4	16	8	2	
Sociology	Description	60.33%	17.84%	1.85%	16.91%	3.15%	0.0%	538
		324	96	10	91	17	0.0	
	Definition	76.81%	1.44%	0.75%	17.39%	2.17%	1.44%	138
		106	2	1	24	3	2	
	Preparation	65%	10%	0. 0	15%	5%	5%	40
		26	4	0. 0	6	2	2	

Table 5. Tense/ Voice Distribution in Original Psychology and Sociology Paragraphs

		Present				Past			
	Function	Simple Present	Present Progressive	Present Perfect	Total	Simple Past	Present Progressive	Present Perfect	Total
Psychology	Description	90.63	3.85%	5. 5%	363	84.9%	7.54%	7. 54%	53
		329	14	20		45	4	4	
	Definition	95.3%	1.34%	3. 35%	149	100%	0. 0	0. 0	8
		142	2	5		8	0. 0	0. 0	
	Instruction	96. 71%	0. 0	3. 22%	31	0. 0	100%	0. 0	1
		30	0. 0	1		0. 0	1	0. 0	
Sociology	Description	92.59%	2. 46%	4.93%	324	96.87%	1.04%	2. 08%	96
		300	8	16		93	1	2	
	Definition	98.11%	1.88%	0. 0	106	100%	0. 0	0. 0	2
		104	2	0. 0		2	0. 0	0. 0	
	Preparation	84.61%	11.53%	3.84%	26	100%	0. 0	0. 0	4
		22	3	1		4	0. 0	0. 0	

Table 6. Aspect and Tense in Original Psychology and Sociology Paragraphs

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4. Conclusion and Discussion

This study first attempted to determine the ESP learners' needs in the fields of psychology and sociology in terms of rhetorical functions and linguistic forms. It also intended to investigate the possible consistency of distribution patterns of functions present in ESP materials with those of the target materials of each field. Based on the findings of the study, the needs of psychology students were defined as 'description', 'definition', and 'instruction', and those of sociology students were defined as 'description', 'definition', and 'preparation'.

As to the second part of the first question, i.e. the linguistic forms which stand in relation to those functions, as Tables 5 and 6 indicate, in descriptive paragraphs 'simple present' tense was predominant. This is perhaps because in performing such rhetorical functions the writer tries to picture in words a state, a fact, a concept, etc. and he may less frequently need to use other tenses. The high frequency of passive voice, particularly in sociology paragraphs may be due to the interdisciplinary nature of sociology or due to the inclusion of 'stative' with 'to be + past participle' structure in the passive category. The high frequency of simple present tense in definitive paragraphs is also associated with the nature of the act of definition.

Regarding the second question, the statistical analyses of the study revealed that ESP textbooks for students of psychology and sociology, represent materials with functional features that are most commonly found in the target materials. The results of statistical analyses also indicate that the rhetorical needs of sociology and psychology students vary in certain areas, like sub-functions of 'description' and 'definition'. Therefore, although the rhetorical needs of sociology and psychology students in some sub-functions may be similar, their needs are not the same in all areas of rhetorical functions.

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