

**Genre Studies of Academic Discourse:
Some Implications for Teaching EAP and EST
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Abstract

This study presents the theoretical foundations and some case studies of EAP/EST discourse for implementing a Master programme course in applied language studies at the department of English-Constantine University. A theoretical framework and some practical implications of case studies in the academic fields provide the construction of a generic framework with an illustration of EST and EAP features. The practical analysis is organised in tutorials where students apply discourse and genre techniques to sample texts.

Keywords: *Discourse and genre analysis, academic and scientific topic types, text and meta-text features.*

Résumé

Cette étude présente les fondements théoriques et quelques études de cas du discours académique, des sciences et technologies afin d'implémenter un cours de Master en études linguistiques appliquées d'Anglais à l'Université de Constantine. Un cadre théorique et des implications pratiques d'études de cas dans les domaines académiques servent à construire un cadre générique avec une illustration des caractéristiques propres au discours académique, scientifique et technique. L'analyse pratique est organisée en ateliers où les étudiants appliquent les techniques discursives et génériques à un corpus de textes.

Mots clés : *Analyse du discours et des genres académiques et scientifiques- caractéristiques du texte et méta-texte.*

ملخص

تعرض هذه الدراسة الأسس النظرية وبعض دراسات الحالة لنصوص الخطاب الأكاديمي في العلوم والتكنولوجيا لتنفيذ برنامج الدراسات اللغوية التطبيقية لنيل شهادة الماستر (Master) بقسم اللغة الإنجليزية- جامعة قسنطينة. يهدف الإطار النظري مدعوماً بالآثار العملية المترتبة على دراسات الحالة في المجالات الأكاديمية إلى بناء نموذج نمطي يستدل بالخصائص النوعية للخطاب الأكاديمي في العلوم والتكنولوجيا. على أثر هذه الدراسة تم تنظيم حصص تطبيقية لتمكين الطلاب من تطبيق تقنيات التحليل النمطي على عينات من النصوص.

الكلمات المفتاحية: تحليل الخطاب والأنماط الأكاديمية والعلمية، الميزات النصية وفوق النصية.

Introduction

The design and implementation of a language course has to answer three basic questions that supply enough answers for its implementation. The first question we have to ask is WHY such a course is to be implemented. The answer represents a course rationale that includes the learners' profile and needs, and expresses the learning objectives. The second question we have to ask is WHAT such a course will contain in terms of inventory selection, resources and teaching materials that are organised in a teaching/learning procedure. The third question we have to ask is HOW this procedure is to take place within time constraints, teachers and learners' roles, and HOW learners' achievements are measured according to the defined objectives.

1. Course rationale

The learners' needs are expressed in terms of the Master 1 requirements which focus on the abilities that the learners need to develop throughout the course. Learners need to improve their academic reading and writing performance, discover levels of discourse and genres, and gain command of formal discourse. The learners' profile is drawn according to their status as BA graduates, in Applied Language Studies, who completed courses in applied linguistics, sociolinguistics and pragmatics.

The Learning objectives are set in two major achievements that the learners are expected to attain. The first achievement includes theoretical knowledge about the models of discourse analysis which have been applied to language, in general, and to the discourse of the academic world in particular. Learners are expected to be able to:

- Define and/or distinguish theoretical models of language analysis ;
- Describe discourse structures and moves;
- Illustrate the models with samples of discourse types and genres.

The second achievement includes the learners' performance in applying the theoretical knowledge to sample texts of academic discourse; they are supposed to be able to:

- apply theoretical knowledge to samples of English for Academic Purposes (EAP) and English for Science and Technology (EST) text analysis;
- discriminate rhetorical functions from rhetorical techniques;
- distinguish the various roles of cohesive markers and lexis;
- evaluate levels of discourse according to textual structure and target audience in order to determine the degree of formality and authenticity.

Both achievements answer the first question WHY the course implementation.

2. Content Selection

The course content is a set of selected items to be included in and covered during teaching/learning sessions. The content selection answers the second research questions WHAT to implement in order to achieve the objectives of the course. In other words, the content selection is a complementary and consistent answer to support the course objectives. The selected items have to be appropriate to and representative of the expected learners' knowledge and abilities.

2.1. Theoretical aspects

The theoretical framework of this subject has to take into account the basic elements of knowledge in the field of discourse analysis in order to build a consistent reference for the

models used by the influential trends. Namely, introductory lectures that cover Speech Act theory of Austin⁽¹⁾, Searle⁽²⁾ and Coulthard⁽³⁾, Conversation maxims of Grice⁽⁴⁾, Cohesion and coherence of Halliday and Hassan⁽⁵⁾, and Discourse Analysis of Brown and Yule⁽⁶⁾ are quite necessary.

A comprehensive view of EAP/EST discourse has to put much more emphasis on Wilkins' ⁽⁷⁾ Notional/Functional Analysis which provides semantico-grammatical and functional categories as both conceptual and functional guidelines for purposive discourse. Significant focus is also laid on Trimble's ⁽⁸⁾ Rhetorical Analysis which restricted the framework to rhetorical functions and techniques in scientific discourse. Moreover, discourse parameters are clarified by Swales' ⁽⁹⁾ genre analysis which adds more prototypes to various discourse genres, purposes, and levels in academic and scientific fields.

2.2. Practical aspects

The illustration of the abovementioned issues in EST and EAP discourse analysis models and parameters is a necessity for the course designer, the teachers and the learners. The choice of the practical studies relied on two major criteria; the first one is the wide scope and audience of the discourse; the second one is the comparative corpora based study and the limited audience of the discourse.

We relied on corpora based analysis and results' sections from many authors who analysed various types of discourse in academic domains of the social sciences, the humanities, science and technology. These resources include the studies of discourse moves in stories by Schiffrin⁽¹⁰⁾, the characteristic features of discourse in newspaper articles by Land⁽¹¹⁾ and

newspaper law reports by Bowles⁽¹²⁾, some cohesion and coherence aspects in economics textbooks and business reports by Mead and Lilley⁽¹³⁾ and Johns⁽¹⁴⁾, sociology textbooks and research articles by Lachenmayer⁽¹⁵⁾, Brett⁽¹⁶⁾, and Love⁽¹⁷⁾, history textbooks and articles by Stockton⁽¹⁸⁾.

Some discourse studies include English for science and technology textbooks by Trimble⁽¹⁹⁾, hard / exact sciences textbooks by Vande-Kopple⁽²⁰⁾, research papers in philosophy, sociology, applied linguistics, marketing, biology, electronic and mechanical engineering by Hyland⁽²¹⁾. Some other studies examine "point of view" essays in exact sciences, social sciences and humanities by Barton⁽²²⁾, textbook extracts, and academic articles in geography, history, economics and business studies by Kay⁽²³⁾. A number of studies analyse psychology, history, and literature writings by MacDonald⁽²⁴⁾, texts from physics, medicine, and economics by Horsella and Sinderman⁽²⁵⁾, and many other academic texts by Hyland and Tse⁽²⁶⁾.

These studies are classified according to their scope of topics covered in the corpora while other studies are considered according to their contrastive analysis of discourse features. Some of these studies, on the one hand, present wide scope discourse targeting a large audience focusing on only one genre like Land⁽²⁷⁾, Schiffrin⁽²⁸⁾, and Bowles⁽²⁹⁾. On the other hand, some studies draw generalisations about a variety of topics and distinguish common features of many topics like Trimble⁽³⁰⁾ and Swales⁽³¹⁾.

However, a third category of these studies present a contrastive analysis of various topic-types according to some

discourse features like Barton ⁽³²⁾, Bhatia ⁽³³⁾, Hyland ⁽³⁴⁾, and Hyland and Tse ⁽³⁵⁾. They come up with a categorization of the relative use of discourse moves, agency, reporting, lexical sets, and many other generic features of discourse in the academic domains which include both the humanities and social sciences and hard/exact sciences.

2.3. EAP/EST discourse features

The resources, mentioned above, helped us set ground for the content inventory by drawing some conclusions about the characteristics of EAP/EST discourse and genre which are synthesized below.

2.3.1. Discourse and meta-discourse of argumentation

The most significant discourse and meta-discourse feature is the organisation structure of building argumentation and its purposive function of argumentative achievement. This function is characterized by:

- The order of ideas, propositional meaning, that represent a structure of information. The use that the author makes of that order represents a move in discourse. According to Hyland and Tse ⁽³⁶⁾, every move would then constitute a speech act;
- The combination of information structure and writer's moves give discourse its force of argumentation. Argumentation is even considered as discourse itself or as a meta-discourse. However, we can consider that three main moves are distinguished as prominent steps which involve the reader in the negotiation of meaning :
 - Determining an initial position (a framework which limits the area of negotiation): facts, states of events, background/prior knowledge;
 - Arguing for or against a given position by interpreting facts, stating and

supporting or rebutting claims and counterclaims, hypothesizing and criticizing; contrast becomes a basis for knowledge creation;

-Reaching a position by accomplishing an action of convincing the reader through comments, conclusion, evaluation and judgement that, according to Schiffrin ⁽³⁷⁾ and Horzella and Sinderman ⁽³⁸⁾, represent a set of metadiscourse functions.

2.3.2. Discourse and meta-discourse of agency and reporting

The academic and scientific discourse is also characterized by precision, concision and systematic structure of its noun phrases that express agency and reporting in the following roles and features:

- Identifying the agent of an action represents the reason, the cause, and the holder of the truth.
- Scientific discourse uses more appropriate agency than the academic one; it is more precise than the academic discourse of humanities and social sciences which is subject to human subjective argumentation.
- Long grammatical subjects are prominent in academic discourse and serve as key structures to identify people, reasons, research fields, and audience while avoiding personal commitment. For example, Vande-Kopple ⁽³⁹⁾ found that long noun phrases might include more than 14 words in the field of medicine.
- Reporting past events, narrating the subject of time is the main concern of history. But history itself is subject to interpretation of facts because evidence can be seen, in the work of Stockton ⁽⁴⁰⁾, as a cause, a consequence or non-evidence.
- The humanities and social sciences have less standardized codes of reporting because, according to

Lachenmayer⁽⁴¹⁾, Brett⁽⁴²⁾, and Hyland⁽⁴³⁾, there is a huge role of human agency in constructing knowledge.

- Prominence of reporting and narrating as functions in academic discourse are structures of past experience, events of the real world, which express also writers' assumptions, beliefs and hypotheses in order to support or criticize a claim or a counterclaim. The former are, according to Bhatia⁽⁴⁴⁾, the writer's manoeuvres to create a context of meaning negotiation and interpretation.

2.3.3. Information structure and discourse functions

The organisation and processing of information through discourse moves lead to major choices made by the authors in order to achieve their communicative purposes. The most frequently used language functions in science and technology discourse are description, definition, classification, and instruction that Trimble⁽⁴⁵⁾ sets as the rhetorical framework of EST. However, in the humanities and social sciences, reporting, narrating, arguing, criticizing, comparing and contrasting, evaluating and predicting are much more frequent and, according to Hyland and Tse⁽⁴⁶⁾, may be used interchangeably to reach diverse discourse purposes.

Contrasting prior/background knowledge to new information serves as a purpose of creating new states of knowledge. This contrasting function of academic discourse can be determinant enough to lead to generalisations and predictions as it can be misleading and speculative enough to lead to ambiguity and contradiction. Both Hyland⁽⁴⁷⁾ and Bhatia⁽⁴⁸⁾ consider these moves in discourse as manoeuvres that EST and EAP writers use in order to build an

idea for meaning negotiation among the readers.

2.4. EAP/EST textual features

At the level of text features, the structure of sentences, the choice of connectives and lexis play significant roles in the processing of information and the achievement of communicative functions.

2.4.1. Sentence structure

The sentence structure in EAP and EST is characterised by complexity, length, and many other aspects which are part of general English but have a high frequency and specific roles in the academic discourse which are explained below:

- The prominence of compound and complex sentences means that there are many clauses and phrases that express a complex idea.

- Long grammatical subjects are complex noun phrases which may include shared prior/background knowledge and / or express agency. The long noun phrase makes the reader retrieve the shared knowledge and lead him to process the new information.

- Reporting clauses, definite, indefinite expressions, modal phrases, conditional clauses, metaphoric, paraphrasing expressions represent, according to MacDonald⁽⁴⁹⁾, a predicate added to the subject and may vary from one genre to another.

2.4.2. Connectives

Drawing particular relations between units of information, processing discourse into homogenous moves, and reaching the audience for a particular purpose make the authors use connectives in the following ways:

- Contrastive and non-contrastive connectives-comparatives, superlatives, conditionals and additives, are used for argumentation to proceed as a discourse type.

-Causal, temporal, contrastive, purposive and continuous relations cannot be expressed and linked in a sentence without the prominent use of connectives.

-Tense and place markers are prominent through the use of adverbs and reference because of the reporting, narrative, genre quality in academic and scientific discourse. A description of facts, events, and groups of people, situations, phenomena and change oblige the writer to mark a place in time and draw relations of development through time.

-Reference helps the writer to avoid redundancy by the use of endophoric (cataphoric and anaphoric) markers in Johns' ⁽⁵⁰⁾ studies of business discourse. However, Barton⁽⁵¹⁾ argues that reference in academic discourse serves also to link the reader with some research status, concepts, models, scholars and theories which are exophoric to the text.

2.4.3. Lexis

Lexical items and lexical sets, word families, collocation are typical register features in a given academic field, let it be an exact science or a subject of the humanities. Naming participants (human constituents, companies, institutions and places) who are under scrutiny generally mark academic discourse.

In the discourse of science and technology, there is a high degree of precision and concision that reduce, largely, the degree of modality. However, in academic discourse of the humanities and social sciences, Kay ⁽⁵²⁾ considers that lexical items and lexical sets are prominently used as attitude markers, hedges and boosters, engagement markers and self-mentions.

3. Course Content Inventory

The findings of this study helped us, then, to set the following content inventory for the first year Master course during Semesters one and two with more precision and consistency:

3.1. Semester One

Register analysis

Speech act theory and conversation analysis

Text linguistics and discourse analysis

Origins and developments of ESP and EST

Language description in target situations

Functional notional analysis

EST discourse functions

Genre analysis parameters

3.2. Semester Two

Discourse and meta-discourse functions in EST

Discourse moves in EST and EAP

Propositional and non-propositional meaning in EST

EST and EAP discourse studies; structure and moves of the argument

The Grammatical subject in EST and EAP texts

The role of Conjunctions in EST

Stating claims and counter-claims

Reporting verbs and tenses

4. Organisation of a Teaching /Learning and Testing Procedure

The course density was limited to two sessions of 90 minutes each; three hours per week. The Lecture session was devoted to lecture notes and debates about the theoretical issues and the presentations of oral reports relying on reading extracts (from the above mentioned course content). The Tutorial session was devoted to the application of discourse analysis models to topic types from the humanities, social sciences, exact/hard science and technology. On every tutorial session, learners apply a

rhetorical and textual analysis of structural, cohesion, and lexical features on different topics and genres. Continuous assessment of learners' performance and proficiency development took into account the oral reports and assignments, and short quizzes in text analysis. Term examinations were also of two dimensions; written examinations of the theoretical aspects and practical text analysis of different academic topics and discourse levels.

These two aspects of teaching/learning procedure and testing answer the third and last question of the implementation: HOW to teach and test the course implementation in view of the course objectives and course content. Complementarily, the course rationale, the course content, and the course evaluation are relatively linked to the teaching learning conditions (number of master students per groups and space) and the availability of resources to get individual copies of the required references.

Concluding Results and Perspectives

The implementation of this EAP/EST course progressed successfully during the last five academic years as the students could get reading extracts from all the above mentioned resources and present oral papers during lecture sessions. They also had enough opportunities to apply the discourse models and textual features to samples of academic and scientific texts at various levels and degrees of formality.

The administered tests and corrections revealed that nearly 70% of the learners achieved average and above average results (marks of continuous assessment and tests). These achievements prepared them to deal

with ESP course design in Semester Three (M2) and choose dissertation topics. Some of them wrote dissertations focusing on EAP/EST and ESP issues. Examples of supervised dissertations are:

- *Communicative Features of Generic Discourse in Biology Research Articles*
- *Expressing Imperatives in Instructional Discourse: A Case Study of House-Hold User Manuals*
- *The Functional and Structural Analysis of SMS Language*
- *Variety and Transfer of Time Inquiry and Expressions in English and Arabic*
- *The Importance of Knowledge about Cohesive Markers in the Comprehension of Reading Extracts .*

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