Evaluation of In-House and Global ESP Textbooks: A Genre-Based Approach

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Abstract
In the present article, five ESP textbooks on computer engineering, both in-house and global, have been evaluated using Swales’ (1990) ESP-based genre theory. The rationale behind such study was to investigate into features of the global textbooks that make them distinctive from their Iranian in-house counterparts. To achieve this goal, drawing on genre analysis as a theoretical framework, a systematic evaluation of the five textbooks based on an approach proposed by McDonough and Shaw (2003) with modifications in its suitability to the specific situation was conducted and the results tabulated through an assortment of grids for comparability purpose. The findings indicated that, despite a tendency to widen the scope of contemporary computer engineering environments as claimed by the Iranian authors, the dominance of traditional frameworks and textbooks persists and is not responsive to students’ needs and advances in genre theory in this field.

Key Words: Genre theory, In-house, Global, Textbook Evaluation, Grid, ESP
Introduction

Academic textbooks vividly typify an important pedagogic genre in academic and professional settings. Hyland (2000) argues that little is known about their schematic structure and their relationship with university textbooks and other genres because they are something of neglected genre. Additionally, academic textbooks exert a significant influence on academic milieu and serve as a means to disseminate facts and developments in different disciplines. Swales (1995) calls them “hybrid genres” and forewarns us that academic textbooks should not be excluded from the process of genre studies since they can integrate new research findings, open up new avenues, and produce appealing new themes that merit further investigation. Academic textbooks usually address multiple audiences so that they link themselves to their disciplines in interesting ways, and underscore the relationship between disciplinary discourses and related social practices (Hyland, 2000). Bhatia (1997) claims that it is likely to spot the evidence of multiple texts, such that discourses encompass other discourses, that is, they exhibit an ‘interdiscursivity’. He further adds that the academic textbook genre is a good example of developing discourses or interdiscursive discourses owing to multiple purposes and audiences. Beneficiaries involved in this sort of genre embrace not only instructors and students in academic education contexts, but also publishers and book sellers, dealing with academic textbook genre as a commercial product within the increasingly globalized academic publishing industry. This justifies the analysis of the academic textbook genre to disclose its discourse norms and the lucid patterns of the overall genre and its sub-genres.

In the majority of countries, English for Specific Purposes (ESP) materials are of two main types in colleges; in-house or institutional materials and global materials. Local educational institutions produce the former whereas the latter are produced by some worldwide publishers such as Oxford and Cambridge. In Iran, universities whether government-run or private, employ institutional materials produced according to the curriculum policies designated and developed by the Ministry of Higher Education. The general layout, expertise of authors, quality and suitability of the in-house textbooks have been always under severe criticism (Amirian and Tavakoli 2009; Atai and Shoja 2011 ). Though the ESP curriculum and the in-house materials have undergone radical adaptations and revisions in recent years, the materials cannot satisfy a wide scope of the needs and expectations of students and instructors. However, most of the existing evaluations of ESP textbooks have not included systematic appraisals. There exists no research, to the best of the writer’s knowledge of this article, which has focused on the differences among ESP textbooks written in the same domain by different authors.
The present study aims, therefore, to be the first organized investigation of textbooks used in the Iranian setting at the tertiary level for students majoring in computer engineering (CEN). This study is based on the assumption that the most important requirements are related to the central aspects of computer engineering environments such as task requirements, curriculum, conditions, and needs, etc. and the research questions formulated in relation to them are as follows:

1. What range of computer engineering is covered in the five ESP textbooks?

2. What importance is given to different subgenres? In other words, what significance is given to technology-driven subgenres, e.g. hypertext?

**Review of Literature**

Many researchers have deployed genre theory to investigate academic texts and their related discourses (Bhatia 1993, 1997, 2004; Dudley-Evans 1986; Hyland 2000, 2004; Hyon 1996; Partridge 1997; Swales 1981, 1990, 2004). Genre theory argues for a text to be contextualized within the context in which it is created. Thus, probing into the language choices in text is indicative of its context and purposes. These purposes are displayed linguistically via rhetorical structures that describe how communicative functions are organized across text. This definition of genre analysis has to a large extent been shaped by pedagogical concerns, especially the need to provide academic texts to help students to grasp the academic discourse and be able to communicate efficiently.

Swales’ definition of genre revolves around communicative purpose and the ways in which communicative needs can form or affect both surface and deep rhetorical structure. Bhatia (1997) points out: rhetorical structures are not static, but dynamic, especially in the contemporary, competitive academic environment. Owing to their dynamic essence, there is a disparity between genres and the altering realities of the academic settings. Accordingly, Bhatia (2004) introduced the idea of genre-mixing in academic settings. To put it another way, there is a mutual interface between discourses and new discourses surface from or within other discourses. This genre-mixing notion is relatively new in genre theory in which both text and context are assumed key factors in the investigation of professional genres.

In the earlier attempts to conceptualize genre, the focal point was on text, allocating a less important background role to context. However, as Bhatia (2008) put, a more pivotal role was assigned to context, and genre has been redefined as an arrangement of text-internal and text-external factors, highlighting two kinds of relationships embracing both texts and contexts in tandem. This interrelationship which can be viewed as interdiscursive in essence is of text-internal properties and text-external resources (Bhatia 2004). Bhatia believes that interdiscursivity often leads to genre mixing, embedding, and bending and operates at all levels; generic,
professional practice, and professional culture, and it sets the scene for a more inclusive study of genres in professional practice (2004).

Earlier evaluations of computer engineering ESP textbooks from the genre theory vantage are, however, limited in the Iranian setting. Deeply-rooted contemporary problems in the related textbooks have been addressed by a few Iranian scholars in general such as Salehi (2010); Amirian and Tavakoli (2011); and computer engineering in particular by Atai and Shoja (2011). Changes, for instance globalization, are obviously called for, as evidenced by Atai and Shoja (2011), who have asked for incorporation of students’ need analysis into the textbooks, and have strongly criticized the sluggish revision of the textbooks.

Methods

Subjects

The target research participants are a group of students majoring in computer engineering (software) who have not yet completed their B.A degrees. They have passed most of their specialized credits in this major and had a solid background in computer engineering. However, most are still at the intermediate level in English. Some studies have been conducted on the needs of students of engineering in general such as Salehi (2010); Amirian and Tavakoli (2011); and computer engineering in particular Atai and Shoja (2011).

As Atai and Shoja (2011) put it “written skills and language components are important that should be included in ESP computer engineering (CEN)”. Given the diversity and evolving nature of workplace requirements, the needs of such students are:

• Knowledge of computer terminology,
• Reading (professional texts, articles, manuals, catalogues, instructions, technical documents),
• Writing (correspondence: letter writing, presentation and structure, enquires and replies, letters of complaints),
• Speaking (international conferences: because of their likely future work with native English speakers).

Materials

The selection of data is supported by the fact that the course, on which the book is used, is obligatory for students majoring in computer engineering (CEN) at tertiary
level in Iran, and it can thus be assumed that the university students will be working in an international environment where they need English. In a search of ESP textbooks for computer engineering, five computer engineering textbooks were identified. Two of the five textbooks are published in Iran and the three have been published in USA and United Kingdom, respectively.

The five textbooks: Special English for the Students of Computer (Haghani, 2003), English for Computer Engineering (Yousekhani et al, 2006), English for Computer Users (Esteras, 2008), Oxford English for Computing (Boecker & Brown, 2009), and English for Computer Science (Brown & Mullen, 2001) constituted the research data. The first is in fact the third reprint of the original in 2003, the second is the 6th reprint of the 2006 revised edition, the third is the most recent book published in 2008, the fourth is the 10th reprint of the origin in 1993, and the fifth is the 5th impression of 1995. The five textbooks were taken to represent ESP textbooks in the Iranian milieu over the past one decade and for the sake of brevity and convenience were referred to in this study as ESSC, ECE, ECU, OEC, and ECS respectively.

Instrumentation

In this study, genre was employed as a conceptual framework to characterize computer relations, since all computer engineering (CEN) activities are goal-oriented. Correspondingly, a multilayered view of the international computer community was utilized in identifying types of computer environments where university students of computer are assumed to work after their graduation. To become members of a known business community, it is expected that students appreciate genre knowledge as their professional capability. To achieve this goal, a genre analysis was conducted to analyze the construction of computer engineering settings and the communication competency required of future practitioners in the five textbooks by drawing on Swales’ (1990) ESP-based genre theory and mostly main concepts, namely, communicative purpose, discourse community, and conventionality as components of genre knowledge.

Data Collection Procedure

Following the genre theory as a theoretical framework, a systematic evaluation of the five textbooks based on the two stage (external and internal) approach proposed by McDonough and Shaw (2003) was conducted with some modifications in the focus to make it suitable to the specific situation outlined above. Also, based on Jordan’s (1997) recommendation, data were tabulated through a set of grids for making comparisons feasible among the textbooks.
Date Analysis Procedure

As mentioned previously, the main framework for this study was Swales’ (1990) genre analysis since it offers a comprehensive viewpoint. The study comprised of two basic steps. The first step examined explicit data, that is, how the publication pages, the prefaces, and forewords, described the international computer engineering environments as well as the relevant subgenres. The second step examined implicit data, that is, the instructional content, primarily the specimen documents given in the individual textbooks. On the basis of allocated purpose, content was in turn labelled as subgenres. Also, generic knowledge required of future computer practitioners was examined.

Finding and Discussion

This section reports the findings of the present study. The findings indicate that there was a dominant trend in the direction of extending the range of computer environments beyond a traditional one. The students are taught a blend of subgenres. However, traditional foreign methodology remained at the core of computer communication in all Iranian textbooks. Following sections outline the detailed account of the technical analysis and results.

Persistent Significance of Traditional Rubrics

The first question dealt with the range of computer engineering environments, was addressed in analyzing explicit and implicit evidence for their representations in the five textbooks. After performing a brief yet accurate scan of the blurbs, prefaces, and forewords, it can be said that the claims in the above paratexts by the global authors are exemplified throughout the book, whereas there is a mismatch between the claims made and content in the Iranian ESP textbooks.

A close probing of the paratexts (those liminal devices and conventions) reveals that there is an inclination which runs chronologically from ESSC to ECE to broaden the magnitude of contemporary computer engineering environments as claimed by the Iranian authors despite the dominance of traditional format. These paratexts were seen to provide evidence of the view adopted in the five textbooks of the important subgenres, the knowledge of which would be considered as important for intended computer engineering environments.

When choosing a textbook, Jordan (1997) recommends making a grid for comparison of several books. This is the basis for Table 1 (physical characteristics), Table 2 (features), and Table 3 that highlights criteria adopted in this study.

As Tomlinson (2008) puts it “…textbooks should benefit from good organization. To materialize organization in textbooks, we may refer to pre-text features, including
informative materials such as table of content, preface, and any other material help students and teachers appreciate the textbook better. Pre-text features such as index and bibliography also add to the quality of textbooks”.

<table>
<thead>
<tr>
<th>Feature</th>
<th>ESSC</th>
<th>ECE</th>
<th>ECU</th>
<th>OEC</th>
<th>ECS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Publisher</td>
<td>SAMT Press</td>
<td>Payame Nur Press</td>
<td>Cambridge University Press</td>
<td>Oxford University Press</td>
<td>Oxford University Press</td>
</tr>
<tr>
<td>Pages</td>
<td>233</td>
<td>262</td>
<td>168</td>
<td>212</td>
<td>239</td>
</tr>
<tr>
<td>Size</td>
<td>22.8 ×15.25</td>
<td>22.8 ×15.25</td>
<td>22.8 ×15.25</td>
<td>22.8 ×15.25</td>
<td>22.8 ×15.25</td>
</tr>
<tr>
<td>Blurb</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Index</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Table of Contents</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Appendices</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>

Table 1: Physical characteristics of five ESP textbooks

Table 1 illustrates physical characteristics of five ESP textbooks. An index, table of contents, and appendices help the students locate information easily and quickly. As can be seen from the Table 1, some items are non-existent in the Iranian ESP textbooks such as blurb, index, and appendices. In sharp contrast, the global authors paid due attention to these items. Perhaps more importantly, the main and obvious difference between the ESP textbooks is the specificity of global-published textbooks since they are addressed to a specialized audience, whereas the Iranian textbooks are planned for general audience who is interested in learning the basic concepts of computer.
Table 2 depicts the features of English style, audience, the presence or absence of a glossary, audio-visuals aids, and navigation. The style of English usage in the Iranian ESP textbooks is merger of American and British English, while ECU is British and OEC plus ECS are American. In terms of audience, ECU, OEC, and ECS textbooks have been designed for job-experienced and pre-experience students.

<table>
<thead>
<tr>
<th>Title of Textbook</th>
<th>Feature</th>
<th>ESSC</th>
<th>ECE</th>
<th>ECU</th>
<th>OEC</th>
<th>ECS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Style</strong></td>
<td></td>
<td>Mixed</td>
<td>Mixed</td>
<td>British</td>
<td>American</td>
<td>American</td>
</tr>
<tr>
<td><strong>Audience</strong></td>
<td></td>
<td>National</td>
<td>National</td>
<td>Global</td>
<td>Global</td>
<td>Global</td>
</tr>
<tr>
<td><strong>Glossary</strong></td>
<td></td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Audio-Visuals Aids</strong></td>
<td></td>
<td>A Few Tables</td>
<td>Non-Existent</td>
<td>Full-Colored Photos</td>
<td>Fully-Illustrated</td>
<td>A Few Tables</td>
</tr>
<tr>
<td><strong>Navigation</strong></td>
<td></td>
<td>Hard-Busy</td>
<td>Hard-Busy</td>
<td>Fair; Topical Chapters &amp; Index Helps</td>
<td>Easy; Well-Organized</td>
<td>Fair-Busy</td>
</tr>
</tbody>
</table>

Table 2: Features of five ESP textbooks

A separate glossary, as opposed to one woven throughout the text, is important for locating terms quickly and easily. On initial consideration, the Iranian ESP textbooks are not accompanied by officially approved cassettes or CDs and the very few freelance materials available mostly skip the normality of natural English. Furthermore, almost all of the audio-visual aids start with the explanation of vocabulary items with insufficient illustration. They deal with only one aspect of the words and that is the meaning. They fail to give a good share to the other components related to the phonological, semantic, syntactic, pragmatic, and collocation properties of the words. Ease of navigation and an attractive, consistent, clear organization help to make the reading experience a pleasant one. The in-house ESP textbooks are somewhat drab with their simple covers and dull illustrations and the pages seem cluttered because of their compact formats.
Generic Developments in Computer Communication

The second research question concerned the treatment of subgenres in computer interactions and the importance given to the available options. To investigate the second research question, attention was focused on genre theory and the five books were scrutinized individually for both explicit and implicit references to different types of subgenre.

After examining the basic surface structure of the five textbooks, an in-depth analysis in terms of several criteria was done. Out of the potentially endless numbers of criteria that could be explored, the focus has been narrowed and limited to areas relevant to the topic of computer engineering. Cunningsworth (1995) criticized the applicability of checklists since one could get astray, distracted and frustrated arising out of this fact that no textbook is perfect. Although this evaluation is grounded on the criteria of McDonough and Shaw (2003), a modified categorization of criteria into different headings merging with others criteria was taken into consideration. Tabulated below are some of the criteria:
<table>
<thead>
<tr>
<th>Criteria</th>
<th>ESSC</th>
<th>ECE</th>
<th>ECU</th>
<th>OEC</th>
<th>ECS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Presentation</strong></td>
<td>Reading; Grammar &amp; Writing</td>
<td>Reading Grammar &amp; Writing</td>
<td>Integration Of Four Skills</td>
<td>Integration Of Four Skills</td>
<td>Reading Grammar &amp; Writing</td>
</tr>
<tr>
<td><strong>Sequence</strong></td>
<td>Linear</td>
<td>Linear</td>
<td>Cross-Referenced</td>
<td>Cross-Referenced</td>
<td>Linear</td>
</tr>
<tr>
<td><strong>Content</strong></td>
<td>Skill-Based</td>
<td>Skill-Based</td>
<td>Thematic</td>
<td>Thematic</td>
<td>Skill-Based</td>
</tr>
<tr>
<td><strong>Syllabus</strong></td>
<td>Lexical</td>
<td>Lexical</td>
<td>Field</td>
<td>Situational</td>
<td>Lexical</td>
</tr>
<tr>
<td><strong>Methodology</strong></td>
<td>Traditional</td>
<td>Traditional</td>
<td>Task-Based</td>
<td>Task-Based</td>
<td>Traditional</td>
</tr>
<tr>
<td><strong>Reading Type</strong></td>
<td>Straight-Forward Language</td>
<td>Straight-Forward Language</td>
<td>Hypertext</td>
<td>Hypertext</td>
<td>Straight-Forward Language</td>
</tr>
<tr>
<td><strong>Authenticity</strong></td>
<td>Contrived</td>
<td>Contrived</td>
<td>Authentic</td>
<td>Authentic</td>
<td>Contrived</td>
</tr>
</tbody>
</table>

Table 3: Criteria useful in evaluating ESP textbooks

**Presentation**

The presentation criterion corresponds to what skills are covered. A close inspection plus review of the Iranian ESP textbooks reveal that they offer a type of broad overview of pre-university materials, four skills, grammar, and vocabulary. It seems that the subject of computer and the English required are too vast to have everything in one book. If the student has a background in the subject in another language, then he or she will be able to transfer knowledge in the primary language to the current context.

In sharp contrast, the global ESP textbooks have a special focus on listening in addition to some speaking (pronunciation) exercises. This inclusion can be justified by the carefully constructed syllabus on which these books are based, as claimed in their blurbs.

Examining just the presentation of the language does not seem adequate since investigating how the materials are sequenced and linked to previous texts,
activities, and topics seems inevitable. In the in-house ESP textbooks, the units are graded in a linear mode beginning with 'pre-reading', reading for comprehension and ending with' homework'. ECU and OEC are more comprehensive since they encompass almost all computer themes. The units are cross-referenced. To grasp amply the meaning within a particular unit, students need to review or preview the previous units. That is to say, the content recycles continuously.

Content

Regarding the content of the textbooks, ECU and OEC have both thematic organizations in which the topics are relevant and there is sufficient treatment of the target language areas considered necessary for the students. The principle organizing approach of both textbooks is to a large extent analogous. ECU is situational or functional and OEC is skills or situations. Both of them also embrace other approaches. This is fairly common in materials (Hutchinson and Waters, 1987) and has been implemented well. Both textbooks provide a "sensible teaching program" (Robinson, 1991; and Hutchinson and Waters, 1987). In addition, they are both to be celebrated in that they mainly eschew culturally-specific situations. By the same token, their content is international dealing solely with global brands only. ECU exceeds further however since its topics are handled very broadly and are often non-culture specific which means they can be tailored much more easily.

Concerning the frequency of vocabulary types, various levels of vocabulary have been identified by different researchers to design the vocabulary component of a language course. To this end, a tripartite classification of vocabulary, jargon, technical and core, proposed by Chung and Nation (2003) was adopted in this paper. The major reason found in the history of research for claiming legitimacy of ESP has been the application of specific vocabulary. This claim can be verified by examining texts, which are of a specific nature and contain vocabulary related to the discipline in question, viz, computer engineering. The table 4 illustrates the overall frequency count of different types vocabulary item extracted from the corpus of data collected for analysis:

<table>
<thead>
<tr>
<th>ESP Textbooks</th>
<th>Total No. Of Words</th>
<th>Core</th>
<th>Technical</th>
<th>Jargon</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESSC</td>
<td>2187</td>
<td>1817</td>
<td>138</td>
<td>132</td>
</tr>
<tr>
<td>ECE</td>
<td>1810</td>
<td>1611</td>
<td>125</td>
<td>102</td>
</tr>
<tr>
<td>ECU</td>
<td>1584</td>
<td>1205</td>
<td>255</td>
<td>354</td>
</tr>
<tr>
<td>OEC</td>
<td>1599</td>
<td>1196</td>
<td>205</td>
<td>323</td>
</tr>
<tr>
<td>ECS</td>
<td>2104</td>
<td>1790</td>
<td>112</td>
<td>102</td>
</tr>
</tbody>
</table>

Table 4: Overall frequency of vocabulary
Based on the tabulated data, it was found that skill-based and thematic-based textbooks have their own syllabi to give the ability to use technical and jargon English to the students. Despite a limited number of token words consulted, the ESSC and ECE in-house textbooks showed different choices in teaching the students the vocabularies, and a tendency from strong accommodation of core or technical vocabulary to a blend of the two whereas the global textbooks showed a trend to increase the prominence given to the technical and jargon in ECU, OEC and reduction in ECS. It was also found that some of high frequency words are common in all the five textbooks. Now, in order to make a comparison between the five ESP textbooks, we should take help from the following graph that juxtaposes the results of the overall frequency of vocabulary:

![Overall frequency of vocabulary](image)

**Figure 1: Overall frequency of vocabulary**

**Methodology**

An effectively communicative-oriented approach is often defined by attributes which are generally associated with it including "Learner-learning centred", "task-based", "activity-based" and "problem-solving". Moreover, as may be deduced from the recent literature on ESP, this point of reference is characteristic of special purpose language teaching in general and ESP in particular.

Guided and Inspired by the above attributes associated with communicative language teaching (CLT), it can be claimed that the methodology used in the Iranian ESSC, ECE plus ECS textbooks cannot be described as communicatively-based since the main focus is on reading comprehension, vocabulary and
grammar rules. Yet, new vocabulary items are presented, practiced and then used on paper, not in real communicative activities.

With regards to methodology, ECU and OEC have both task-based orientations. As mentioned earlier there is plenty of variety and scope, it has a good balance of skills with cognitive problem solving exercises and personalized communicative activities.

**Reading Type**

As Tahriran and Basiri concluded (2003), hypertext reading involves more selectivity on the part of the readers and the reader is given freedom to select his/her own path, speed, navigation, intended information, whereas readers who have to adhere to traditional convections which define the framework of foreign language reading have no choice.

ESSC, ECE, and ECS use straightforward language but become increasingly difficult as students’ progress towards more advanced units. The texts are dense, and the volumes of the material are overwhelming at first. Ideally, individual chapters can be dissected and used in designing lessons. On the contrary, ECU and OEC contain more sophisticated and knowledge-based hypertext because of its abundance of texts and articles that are adapted from various resources. Nearly every unit discusses unique aspect of computer engineering.

Although ESSC plus ECE are very computer-oriented, the pace of their materials would appear to be more suitable for a long-term continuous course. They suffer from their tendency to concentrate on long texts and ignore other important components. It is largely Iranian-centric and their designs also detract from their competitive edge.

**Authenticity**

With regard to authenticity, ESP textbook are expected to be selected from real-life texts that are not necessarily produced for language teaching (Day, 2003). As Dudley-Evans *et al* (1998) puts it; contemporary approaches to ESP have redefined the concept of authenticity in two principal ways. On the one hand, authenticity of text includes texts other than the ones that are in textbooks, and at the same time a distinction is made between different types of texts generated by a given skill. Reading, for instance, may be collapsed into reading reports, technical journals, instruction manuals, etc. On the other hand, authenticity can be dealt with authenticity of tasks. That is, tasks should encourage students to process texts as they may occur in the real world. Simply put, ESP materials should incorporate the relevant skills and strategies for students as would be required in the target situation.
Considering whether the tasks encapsulated in five ESP textbooks keep up a correspondence to those that learners are likely to expose outside of the classroom milieu and whether these texts help out them in handling genuine communicative events, unluckily the Iranian ESP textbooks could not achieve these aims. Unlike ESSC, ECE and ECS that use contrived materials, ECU and OEC use numerous authentic materials. For example, a large number of articles from different resources, such as newspapers, writing samples, templates for correspondence, and other documents are supportive for reading and writing practice in the target language can be found.

With regards to the foregoing findings, the textbook that is the most courageous and comes closest to ESP context is ECU (Esteras, 2008). Although geared toward a British and international audience, it resembles a realistic language text, with thematic chapters and language embedded in computer engineering contexts. The material offers some practical information that facilitates more effective communication in the workplace. It can also support development of instructional materials and/or courses for non-native English speakers seeking jobs in computer engineering abroad. It copes at length with the target domains documented in the needs analysis. Let it remain unsaid that the content of this ESP textbook and the language described merit further exploration and expansion due to the complexities of this specific linguistic setting, and the multi-dimensional work in computer engineering entails.

Conclusions

This study was stimulated by the claim that Iranian ESP textbooks in computer engineering are not appropriate enough in incorporating the most important expertise and knowledge required of students to grasp for their future profession. This paper employed genre analysis to analyze the construction of computer engineering environments and the communication competency required of future computer practitioners in the five textbooks by drawing on ESP-based genre theory proposed by Swales 1990. An attempt has been made here to give rather objective criteria for any further justification or decision. It seeks to explore into how the two Iranian ESP textbooks over the past years reflected changes in the contemporary computer engineering environments, and particularly, genre knowledge of computer engineering communication required of students, paves the way for achieving this end.

The results of the present study suggest a couple of practical implications for future ESP textbook development. The selection of written English computer engineering(CEN) and related communication features should address the relevance of their significance for students’ future employment requirems. For instance, hypertexts are widely acknowledged as a genre on their own and also features of them have been increasingly consider as generic. Moreover, the
widespread use of hypertexts has also made traditional texts outdated and less reader-friendly. Common shortcomings in the Iranian ESP textbooks have been seen to result from an incomplete or partial description of needs analysis, a need for the up-dating of technical and jargon vocabularies, a failure to accommodate changes in genre theory and out-dated phraseology. Many ESP textbooks in the world receive repeated revisions to cope with the new demands, while there is nothing changed in the Iranian ESP textbooks since they are re-published every twelve months without any substantial revision, although researchers have strongly criticized the sluggish revision of the ESP textbooks in Iran.

It is hoped that the present study opens up important avenues for further research into the Iranian environments and the use and teaching of ESP in Iran. It is widely acknowledged the following comment by Sheldon (1988): “the same course book, when judged by the same criteria, could be ‘successful’ in one context, but not in another.” In light of earlier practical studies on computer engineering environments and the relevance of the instruction of textbooks to practices outside Iran, further study in this area is needed in Iran.

References


**Surveyed Textbooks**


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