

CURRENT PROGRESS AND FORWARDS IN TEACHING ENGLISH FOR GEOLOGICAL PURPOSES

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SUMMARY

The fundamental theory on ESP (English for Specific Purposes), its characteristics, origins, types, demands, goals as well as variety of classification are outlined in the report. In addition, it is much more focused on the up-to-date progress including course objective, designs and skills expected to be obtained by students and current trends in teaching English course for geological purpose at the School of Earth Sciences, National University of Mongolia as well as fields further needed to be improved while considering some problems and reasons. There is discussed currently used approach to teaching English for Geological Purposes to geology-major students.

This time we do not address any surveys on students' progress, or such controversial issues as who must teach the course, English teacher or specialist in the field etc.,

Key words: *English for Specific Purposes, English for Geological Purpose, geology, teaching, reading skill, learner-centered approach*

INTRODUCTION

The overall development has created global society where people from various linguistic backgrounds are connected with the aim of further progress and specialization. Society is now at a stage at which it is possible to obtain information about almost anything within very short period of time. Such a situation requires the usage of one language for mutual understanding and communication of scientific, technological and academic information among different linguistic groups. Due to its influence and widespread usage, English has become the common language of international experts in a wide range of subjects, such as social sciences, natural sciences including geology and mining which are key fields for further economic development of Mongolia. Consequently, the language teaching profession has seen the emergence of language teaching for specific purposes.

English for specific purposes is closely connected to language for professional purposes, where speakers of English as a foreign or second language have to learn how to learn language in areas where they are working or going to work. A major interest in this approach is to create knowledge about the specific needs to be covered in specialized language classrooms, in order to make this kind of language teaching as efficient as possible.

ENGLISH FOR SPECIFIC PURPOSES (ESP)

The origins of ESP

Certainly, a great deal about the origins of ESP could be written. Notably, there are three reasons common to the emergence of all ESP (Huchinson&Waters,1987):

- The demands of a Brave New World
- A revolution in linguistics
- Focus on learner

At a 1997 Japan Conference on ESP, Dudley-Evans offered a modified definition. The revised definition he and St.John postulate as follows:

1. Absolute Characteristics

- ESP is defined to meet specific needs of the learner;
- ESP makes use of the underlying methodology and activities of the discipline it serves;
- ESP is centered on the language (grammar, lexis, register), skills, discourse and genres appropriate to these activities

2. Variable Characteristics

- ESP may be related to or designed for specific disciplines
- ESP may use, in specific teaching situations, a different methodology from that of general English
- ESP is generally designed for intermediate or advanced students
- ESP is likely to be designed for adult learners, either at a tertiary level institution, or in professional work situation. It could, however, be for learners at secondary school level;

As for broader definition of ESP, Hutchinson and Waters (1987) theorize “ESP is an approach to language teaching in which all decisions as to content and method are based on the learner’s reason for learning”.

Types of ESP

David Carter (1983) identifies three types of ESP:

- English as restricted language
- English for Academic and Occupational Purposes
- English with specific topics

The English used by air traffic controllers or by waiters are examples of English as a restricted language.

The second type of ESP identified by Carter (1983) is English for Academic and Occupational Purposes. In the “Tree of ELT” (Hutchinson&Waters,1987) ESP is broken down into three branches:

- a. English for Science and Technology (EST)
- b. English for Business and Economics (EBE)
- c. English for Social Studies (ESS).

Each of these subject areas is further divided into two branches: English for Academic Purposes (EAP) and English for Occupational Purposes (EOP).

An example of EOP for the EST branch is “English for Technicians” whereas an example of EAP for the EST branch is “English for Medical Studies”. So, English for Geological Purposes can be referred to both EAP and EOP depending on much more detailed goals and contents.

The third type of ESP identified by Carter (1983) is English with specific topics which is uniquely concerned with anticipated future English needs of, for example, scientists requiring English for postgraduate reading studies, attending conferences or working in foreign institutions. However, it might not be a separate type of ESP. Rather it is an integral component of ESP courses or programs which focus on situational language.

The goal of English for Specific Purposes is not primarily the teaching of a subject in English as a foreign language, but rather that the aim is to teach English with a specific content which is normally mixed with general topics. ESP concentrates more on language in context than on teaching grammar and language structures. It covers subjects varying from accounting or computer science to tourism and business management. The ESP is integrated into subject matter area which is important to the learners (Lorenzo Fiorito). An ESP program, might, for example, emphasize the development of reading skills in students who are preparing for graduate work in geology; or it might promote the development of writing skills in learners in order to work for foreign-invested company and be responsible for reporting the exploration results in English.

As a matter of fact, ESP combines subject matter and English language teaching. Such a combination is highly motivating because students are able to apply what they learn in their English classes to their main field of study, whether it be business management, economics, tourism or geology.

The students' abilities in their subject-matter fields, in turn, improve their ability to acquire English. In the ESP class, students are shown how the subject-matter content is expressed in English. The teacher can make the most of the students' knowledge of the subject matter, thus helping them learn English faster.

The term “specific” in ESP refers to the specific purpose for learning English. Students approach the study of English through a field that is already known and relevant to them. This means that they are able to use what they learn in ESP classroom right away in their work or studies. The ESP approach will motivate the students to interact with speakers and texts since their interest in their field.

The study of languages for specific purposes represents a synthesis of linguistics and methodology of teaching foreign languages. The study of languages for specific purposes is highly student-centered, focused on learners' professional linguistic needs, as well as teaching materials production.

In learner-centered approaches, course design and teaching often become negotiated, dynamic processes, since needs, expectations and student resources vary with each group. This suggests that language for specific purposes teachers must take into account student learning styles, strategies and language learning approaches. LSP teachers should assist students in becoming more flexible and more aware of their own learning styles and approaches.

Teachers may find it difficult to motivate the learners to work independently-young people do not feel truly responsible for their own learning and self-improvement. Students may have deeply rooted beliefs about the roles of teachers and students, which may slow down the process of achieving independent learning. It is crucial to show students the range of autonomous options and raise their awareness of the different learning strategies that are open to them. Students need to take responsibility for their own language development, which would in turn prove useful when the students have to use English in their professional life.

Autonomy presents necessity in society which puts great emphasis of lifelong learning. Since teachers cannot provide the students with all the skills and knowledge they would like to have, the best way to help students is by providing them with STRATEGIES ON HOW TO LEARN BY THEMSELVES. The first step towards autonomy is encouraging the students to take responsibility for their own learning. The concept of student autonomy and successful learning are closely connected. Teachers of ESP teach both language and content and the relationship between the teacher and the student is different from that in general English in which the teacher has very little knowledge. This specific relationship affects the methodology of teaching which is no longer teacher-based and this is one of the hardest things teachers have to learn. Another characteristic of ESP methodology is interdisciplinary team teaching. Cooperation between language teachers and expert subject teachers is essential if the ESP course is to be of any success. The role of the teacher has changed in recent years in the light of current trends in education, technological advances, and information explosion and communication revolution. The teacher is no longer viewed as the only source of information or imparter of knowledge. Teacher is a facilitator of learning, an organizer and coordinator rather than a director of the learner's activities. He or she is an advisor and a consultant on the learner's problems.

Demands for English for Specific Purposes, its goals

ESP course is naturally learner-centered approach. In contrary, fast development of geology and mining sectors caused by a lot of foreign investments, requires competitive specialists with very high knowledge and ability of foreign languages and computer skills to be prepared at universities in Mongolia.

Knowledge of both General English and English for Geology purposes is necessary for progress and development. For this reason, knowledge of General English, at least, at intermediate level is mandatory for a successful participation in the course. Students need training in specialized language which includes not only vocabulary, but also specific grammatical structures, phrases, styles and principles of oral and written communication which are characteristic for any specialization.

In ESP, the authentic world must be brought to the students, and they must learn to interact with the language as it is spoken and written in target situation. Thus, ESP teachers must be willing to negotiate with both experts in the target situation and with the students. Even though there are many textbooks believed to be appropriate for ESP courses, Johns (1981) claims that no textbook can fulfill all demands of specific situation. For this reason, the teacher must rely on his/her own knowledge when assessing the appropriateness of the material to be used for developing students' skills. For such a real reason, the ESP teacher is

required to be someone who is able to integrate with the lecturers of main major courses as well as he or she must be specialized in the specific field him/herself.

CURRENT PROGRESS AND FORWARDS IN TEACHING EGP (ENGLISH FOR GEOLOGICAL PURPOSE) AT THE SCHOOL OF EARTH SCIENCES, NUM

With the increasing demands for English language knowledge and ability of students entering the Faculty of Earth Sciences, the Department of Geology decided to offer specialized course of Geology English in addition to regular English lessons. Generally, the specialized course was first offered in 2006-2007 academic year following after four-semester Standard English courses. It was meant for students who had passed an examination in a Standard English course and had reached the intermediate level of English. However, the first course specialized in developing individual skills was a course for combining reading and translation. The main purpose of introducing the course specialized in reading and comprehension was to get a text-oriented course tailored to the needs of students who major in the field of geology. A course is focused on texts and reading skills useful for both the academic work and future profession of the participants. In case of English course for Geology Purpose, students are awarded 2 credits per exam.

Course Overview and Objectives

ESP is known as a learner-centered approach to teaching English as a foreign or second language. It meets the needs of learners who need to learn a foreign language for use in their specific field, such as science, technology, medicine and academic learning. In a sense, English for Geological Purpose must meet the needs of students who need English knowledge and ability for use in Geological field, either academic purpose or professional/occupational purpose. In order to define the goals, the teacher has to consider what the real needs for geology students are.

Currently, the objective of the course is defined as allowing students to obtain ability to use available materials in English for further academic work such as assignments, diploma work for BS degree in geology etc., It means the course is especially focused on reading.

During the ESP class the students are suggested to use two different approaches to construct the meaning from the text: syntactic and semantic approach (Clark and Clark, 1977; Field, 2003). In the syntactic approach, the reader divides the sequence of letters into words and their constituents and by using linguistic knowledge and formal schemata, the reader constructs meaning. In the semantic approach, on the other hand, the reader uses content words, content schemata, and world knowledge and life experiences to construct meaning. The geology students mix these two approaches to understand the text. In accordance to Ziahosseiny (2005) to utilize the two approaches, the learners must have a command of the following pieces of information:

- a. The meaning and function of the key words in the text
- b. The key grammatical structures in the text, and
- c. The cohesive devices and coherence in the text

The material which is used for English for Geological Purposes course includes authentic texts, parts of General English, and available textbooks on physical geology, mineralogy, mining, geotectonics as well as materials prepared by the teacher and topics and tasks related to the field of geology.

Skills practiced in the course

Reading sub skills

- Skimming a text
- Scanning a text for particular information
- Intensive reading for detail, for in-depth understanding

Other skills are combined to achieve improvements in reading and to make the lesson more lively:

- **Writing:** filling gaps in texts through guessing the meanings of missing expressions from the context; reconstructions of texts read before; written reactions to what has been read, a written summary of a large text; doing crosswords based on geology vocabulary and explanations
- **Speaking:** text-based discussions (which is usually suggested by the teacher for students), oral presentations based on prepared information on geology field,
- **Listening** to the teacher and fellow students in discussions with possibility of pronunciation corrections

Complementary skills

- Vocabulary work: doing crosswords based on the geology vocabulary and their explanations, deducing meanings of unfamiliar lexical items (words, compound nouns) from the context, work with prefixes and suffixes, synonyms, antonyms
- Familiarization with basic reference skills (use of dictionaries both bilingual and glossary, indexes)
- Familiarization with grammatical structures typical of scientific articles, texts on geology field; teaching of grammar is based on minimum necessary for understanding academic texts. Grammar is taught not a goal, but as a tool.
- Learning how to read legends, symbols, names of units etc.,

Designing course

Types of materials used in course:

General English: basic grammar references especially related to passive and active forms of verbs which are widely used in scientific styles, noun, adverbial and adjective clauses, reduced forms etc.,

Geology English: specialized textbook on Physical Geology, articles from professional journals (Journal of Asian Earth Sciences), source materials downloaded from Internet sites such as Wikipedia; glossary of geological terms in both English and Mongolian languages etc.,

In the course the teacher always tries to present materials which

- provide stimuli for learning

- are relevant to students (containing topics and vocabulary related to geology and mining, but also general vocabulary)
- engage students thinking capacities and revising for knowledge and information studied in their native language before
- give them opportunities both to use their existing knowledge on geology and enrich it

Designing lesson

- Reading is much more focused than others due to real situation and short period as well as general background of most students' English language skills.
- Making students to learn themselves, improve themselves, autonomy
- Oral presentation (directly depending on students' ability, students are allowed to use presentations which are available in the websites or prepared by others at high level, but they are required to be related to students subject field such as physical geology, stratigraphy, tectonics etc., However, only student's ability to understand the subject-matter content (comprehension) and him/herself expressing ability, orator skill, behavior, pronunciation are assessed and some feedback is suggested by teacher. The presenters are also asked questions, explain for some aspects related to the presented topic as well as discuss with other students.
- Materials used for the ESP course: Recently, authentic materials from Physical Geology are given for home reading and translation to students as independent work during second year general English which is at intermediate level. According to teacher's experience and private observation the reading and comprehension skill of students tend to be improved if the students are motivated well and can train regularly. In addition, learning any languages, including improvement of reading and writing skills, are tightly connected to self-organization and tolerance to do it very regularly, every day, every couple of days. Secondly, some scientific research papers which are related to tectonics, stratigraphy, sedimentology are selected for main materials for class reading, additionally, materials sourced from internet websites such as Wikipedia Encyclopedia are used both during class and homework. Some grammar reference materials including sentence types, clauses, conjunctions, verb tenses, passive voice tables, are explained at the same time with subject matter of Geology. However, grammar aspects are taught as a tool, not for goal. Students are suggested to use encyclopedia of geology, glossary rather than bilingual dictionary.
- Students' ability in their subject-matter fields improves their ability to acquire English. In the ESP class, students are shown how the geology-matter content is expressed in English. Without the grammar knowledge such as structure, verb tenses, styles etc., students find the texts difficult to understand. Moreover, they commonly claim that long complex or compound sentences or clauses are usually not easy to connect and understand the exact meaning. Even though such sentences are guessable due to the subject-matter field, mostly it makes some trouble for students and sometimes makes them give up.

- As an ESP teacher, he or she must play many roles. She may be asked to organize courses, to set learning objectives, to establish a positive learning environment in the classroom and to evaluate student's progress. After a proper time of hard efforts and regular study the students are stimulated by their achievement such as increasing vocabulary, recognizing structure of complicated sentences, as well as comprehending the core meaning or revising for matter which they already studied in native language. This motivation reflects student's strategies.

CONCLUSION

There are still many problems caused by mixed ability group, lack of comfortable study environment and controversial issues such as who is better at teaching ESP course. However, it should be noticed that we did not address on such problems and there have not been reported any results or assessments related to students' progress. We have discussed general concepts of teaching ESP course, its modern tendency, and current progress of English for Geological Purpose for geology students at the School of Earth Sciences, National University of Mongolia as well as the further trends and aspects needed to be improved further as follows.

The significance of the English for Geological Purposes is that the course helps students improve:

- The techniques and strategies leading to efficient reading
- The level of comprehension of English texts on the field of geology
- The orientation in difficult, unknown texts in English
- The use lexis (both general and geological)
- Grammar structures typical for scientific and technical genres
- Geological knowledge, increase their geological vocabulary as well as enrich their scope of knowledge in subject-matter.

The following aspects are needed to be improved further:

- Pre-and-post courses Integration (prerequisite and following courses) must be strongly required.
- To take surveys on students' needs and progress in order to determine appropriate approach to teaching ESP course as well as surveys should be taken from employers such as foreign-invested or domestic companies.
- To set much detailed or much more precise long-term and short-term aims (goals and objectives) (but it should mention that developing curriculum is much complicated work which requires time and skills regarding a number of factors).
- To decide whether to teach English for Academic Purpose or for Professional/Occupational Purpose based on social demands and surveys from learners
- To develop curriculum on the basis of social demands and geology students need analysis
- To select, design and organize the course and materials based on discussion with specialists while providing integration with other main subject areas of geology
- To assess and evaluate the students' progress of English for specific purposes

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