English for Specific Purposes (ESP): A Better Approach for Teaching English to Students of Science and Technology

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ABSTRACT: Unlike General English (GE) approach, English for Specific Purpose (ESP) is the language teaching approach designed to meet the specific needs of the learners. Similarly, it is an approach which focuses on the learner’s reasons or purposes for learning the language. The paper seeks to find out the better approach that will tackle the dwindling language skills and competence among students of science and technology which General English (GE) fails to tackle in colleges of education. The frameworks of Hutchinson and Water (1987) as well as Stevens (1988) are used to guide the study. The findings reveal that English for Specific Purpose (ESP) as a learner-centered or goal-directed is better approach than General English (GE). Similarly, ESP as an activity-based and content-specific approach will turn science and technology students into context or functional users of language unlike GE. Accordingly, the paper concludes that quality science and technology teacher production could not be possible without the required language skills and competence necessary for academic and occupational purposes. The recommends for the needs analysis of students in order to identify their purposes or reasons for learning English language. It further recommends among others that English for science and technology (EST) should be incorporated as independent course to science and technology students.

Keywords: General English (GE), English for Specific Purpose (ESP), Science and Technology, English for Science and Technology (EST).

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1. INTRODUCTION

The continuous dwindling language skills and competence among students of science and technology and the failure of General English (GE) to handle the situation are the cause for concern, as far as quality science and technology teacher production is concerned. Unfortunately, this ugly scenario is also evident even among students of English. However, so many reasons could be attributed to this problem, but among the major ones are that learners’ needs and purposes for learning the language are neglected. This is because; some general English courses (GE) do not seem to make much impact or difference. Notably, the students need to be trained to learn and use exactly the kind of language required for their needed purposes, professions, disciplines or specific tasks at work. Therefore, the language teaching approach that will handle this is English for specific purpose (ESP). English Specific Purpose is the language teaching approach designed to meet the specific needs of the learners or focused on the learners’ reasons for learning the language. Thus, Hutchinson and Waters (1987) said. Tell what English you need for, we will tell you the English you want.

EMERGENCE AND GROWTH OF ESP

The origin of ESP dated back in the 1960s. according to Kennedy and Bolith (1987) in Otilia (2015) maintained that four factors were responsible for the emergence of ESP: the introduction of mass education programmes, the need of English as common medium of communication and the growth of business and increased occupational mobility as well as the facilitation of access to scientific technical literature and research.

While, Hutchinson and Waters (1987) stated that four reasons led to the emergence of ESP: the demands of the Brave New World (i.e the enormous and unprecedented expansion activities); the revolution in linguistics, the oil crises of the early 1970s where involved massive flow of funds and western expertise into the oil rich countries which suddenly turned English into “big business” and lastly updating of knowledge from various countries.

Similarly, According to Black and Cameron (2002) a lot of factors have contributed to growth and popularity of ESP. The advancement of technology and commence necessitated the demand for practitioners to
master specific language skills. Equally, a shift of paradigm in educational psychology to learners and their attitudes to learning has given ESP extra fuel to speed (Hatchinson and Water, 1987).

Moreover, education too is positively and increasingly affected by the advent of new technologies and media notably, the relationship between technology, media and language most especially English creates a new demand for any parties engaged in the development of a new civilization and in-turn the need for specific language teaching cannot be neglected (Block and Cameron, 2002).

In the same trend, Astika (1999) also viewed the development of technology and commerce as central to the rise and growth of ESP. He further maintained that the continuous advancement of technology and commerce has also created continuous needs for students and professional to master the language of commerce, science and technology not only for academic purposes but also for occupational purposes. Therefore, incorporating English for science and technology as an independent course in Colleges of Education will improve the quality teacher science and technology teacher production in the country.

ENGLISH FOR SPECIFIC PURPOSES

Hutchinson and Waters (1987) defines ESP as an approach to language teaching in which all decisions as to content and method and based on learners reasons for learning. Similarly, Strevens (1988) views ESP as a particular case of the general category of special purpose language teaching. He further expatiates that ESP consists of English language teaching which is designed to meet specified needs of the learner, related content to particular disciplines, occupations and activities, centred on the language appropriate to those activities in syntax, lexis, discourse, semantics etc. and analysis of this discourse in contrast with General English.

Accordingly, Robinson (1991) sees ESP as an enterprise involving education training and practice, and drawing upon three major realms of knowledge specialist areas of interests. He further postulates that ESP is normally goal oriented and derived from the needs analysis which will state as accountant as possible what the learners will have to do when speaking the language. Meanwhile, Richards ad Rodgers (2001) also maintain that ESP seeks to serve the language needs of learners who need English in order to carry out specific roles and who need to acquire content and real world skills through the medium of it rather than master the language for its own sake.

Furthermore, Paltridge and Starfied (2013) consider ESP as a teaching and learning of English as a second or foreign language where the goal of the learners is to use English in a particular domain. However, deducing from above definitions, it clear that ESP is described as approach it the teaching of English for academic studies, vocational or professional purposes, as well as any purpose that could be specified based on the learners needs.

CHARACTERISTICS OF ESP

Streven (1988) and Dudley Evans and ST John (1998) classify the characteristic of ESP into the following:-

1. Absolute Characteristics
   - ESP is designed to meet the specific needs of the learner
   - ESP is centered on the language appropriate to those activities in syntax, lexis, discourse semantics genres etc. and analysis of this discourse ESP is in contrast to General English.
   - ESP is related in content (i.e.in its themes and topics) to particular disciples, occupations and activities.
   - ESP makes use of underlying methodology and activities of the discipline it serves.

2. Variables Characteristics
   - ESP may be but not necessarily restated as to the language skills to be learned (e.g reading only).
   - ESP may be, but is not necessarily taught according to any pre-ordained methodology
   - ESP may be designed for specific disciplines
   - ESP may use in specific teaching situations, a different methodology from that of General English.
   - ESP may be designed for adult learners, either at a tertiary level institution or in professional work situation. It could, however, be for learners of secondary school level.
   - ESP is general designed for intermediate or advanced students.
   - Most ESP courses assume some basic knowledge of the language systems.

Therefore going by above characteristics, it suffice to say that ESP is learners centered, goal directed discipline and context specific as well as adult centered approach to language teaching.

TYPES OF ESP

The first attempt to classify the types of ESP was made by the British council in 1975 under the auspice of the Ministry of Foreign Affairs in Great Britain. The council’s taxonomy classified ESP into English for Academic Purpose (EAP) respectively. Later on, Hutchinson and Waters (1987) further classified ESP into three: English for Academic Purposes (EAP) English for Science and Technology (EST) and English for Occupational Purposes (EOP). Subsequently, Robinson (1991) also classed ESP in two EAP and EOP. But he
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Further considered English for Science and Technology (EST), English for Business and Economic (EBE), English for Medical Purpose (EMP) and English for the Law (ELP) as sub-division of EAP. Notably, EOP is sub-divided into English for Professional Purposes (EPP) and Vocational English as Second Language (VESL). However, EMP and EBE Academic equally there are EMP and EBP professional. Meanwhile, VESL is further categorized into pre-cluster VESL and Workplace VESL respectively.

Summarily, different scholars classified ESP differently their own way as such EAP is also classified into English for specific academic purpose (ESAP) and English for General Academic Purposes (EGAP). There also exist English for Social Science (ESS), English for journalism or media English, English for Technicians, English for Administration, English for Secretaries, English for socio-cultural purpose, English for Psychology, English for teaching among others.

FUNCTIONS OF ESP

Indeed, the rationale behind integrating ESP in ELT is to help language learners cope with features of language or develop the competencies needed or function in a discipline, professional or work place (Bensafa, 2017). First and foremost the primary function of ESP is effective language teaching by describing and ensuring that learners understood and learned what as perceive to be the structures core of English.

Secondly, ESP concerned with the description of language use and functional explanation of language. Thus, to locate source outside the linguistic systems that determine how language is organized, ESP has embraced this idea thus, ESP approach is built on an assessment of purpose needs analysis and the functions for which English is required.

Thirdly, ESP is learners centred approach rather than teacher directed teaching method (Harners, 1989) in Bensafa (2017) thus, it functions in providing the favorable cognitive and social opportunities for interaction, which are greatly important and successful for language teaching and learning. In a nutshell ESP is turning learners into users of the language.

Lastly, ESP being focused on the learners needs, it saves time or waste no time as observed by Coffey (1985) that ESP is a quick and economical use of language in order to pursues a course of academic study (EAP) or effectiveness in paid employment (EOP) in the same vein Rong (2005) also states that General English language for no purpose courses at any proficiency level almost always teach too much e.g vocabulary skill, registers or styles that some learners do not need and too little e.g omitting lexis and genres that they need. Instead of a one-size first all approach, it is more defensible to view every course as involving specific purposes.

Although, ESP is cost effective, but it is more effective than General English; because it is goal directed, learners centered as well as learner focused that is designed to impart and provide the needed and required language learning. Thus, adopting the approach by incorporating English for science will improve the quality of science and technology teacher production is Nigeria.

ENGLISH FOR SCIENCE AND TECHNOLOGY (EST)

English for science and technology (EST) as type of ESP belongs to the both sides of the English for Academic Purposes (EAP) and English for Vocational Purposes (EVP). (Robinson 1991). It is designed to meet the specific needs of students in intermediate and advanced courses as well as those who want to specialized or work in any of the fields of science.

Similarly, Rao (2014) considers English for science and technology (EST) as learners centered approach which focuses on student’s needs as well as provides an individualized, flexible learning environment for every student. Thus, effective language teaching and learning can only be achieved when teachers are aware of their learners’ needs, capabilities, potentials and preferences in meeting these needs.

Furthermore, English for Science and Technology (EST) generally refers to English used in scientific publications, papers, textbooks, technical report and academic lectures, etc. It is used to describe the physical and natural phenomena, the processes, properties, characteristic, laws and applications in productive activities. (LI and Li 2015).

Additionally, the aims of English for Science and Technology (EST) is to equip the students with the necessary linguistic knowledge and strategies in order to understand the discourse features of scientific and technical texts produce reader-oriented, engaging and persuasive scientific and technical texts; and to achieve clarity, accuracy, conciseness and overall effectiveness in writing for science and technology.

CHARACTERISTICS OF EST

The characteristics of EST are classified into the following:

1. LEXICAL CHARACTERISTICS

The high level profession and preciseness of science and technology materials are tactfully achieved by such lexical characteristics of EST as the frequent use scientific and technical words, the replacement of verb phrase with verbs and the extensive use of abstract nouns and descriptive adjectives.
2. SYNTACTIC CHARACTERISTICS
The accuracy, conciseness and objectivity of EST documents and also achieved or attained by some syntactic characteristics of EST, such as the extensive use of postpositive attributive, non-predictive verbs, and passive voice as well as long and complicated sentences.

3. RHETORIC CHARACTERISTICS
The objectivity, compactness and coherence of EST materials can be further enhanced by the rhetorical features of EST, such as limited use of tenses, simple rhetorical choices, the common use of abnormal sentences and deliberate use of subjunctive mood and imperatives.

ESP AS A BETTER APPROACH
- ESP is a better approach for teaching English to student of science and technology because of the following reasons:
  - ESP is the language teaching approach designed to meet the specific needs of the learners, it is also learner-centered, learner-focused and goal directed as it is better than General English (GE), since effective language teaching and learning can best be achieved when teachers are aware of their learners’ needs, give preferences in meeting these needs and provide flexible learning environment for every students.
  - ESP equips students of science and technology with the necessary linguistics knowledge and strategies needed for understanding course features of scientific and technical writing. Thus, training the students to use English for Academic Purposes (EAP) and Occupational Purposes (EOP), which inturn prepare them as both academics and professionals in any of the fields of science and technology. ESP is an enterprise inviting language training and practice. It embraces the idea of functional usage of language or using language in context as well as the best or effective way to learn a language is to practice it. As such, ESP teaching is interactive, activity-based discipline and context specific, unlike General English (GE) ESP is turning students of science and technology into context users or functional utilizers of language.
  - ESP is also an eclectic and adult-centred approach, normally designed for intermediate and advanced students or participants. However, it is also designed to accommodate beginners or learners at secondary school level. Therefore, its eclectic nature provides the teacher with the methodological flexibility to handle varying degrees of learners’ capabilities, potentialities and inabilities within a particular science and technology classroom. Thus, every individual learner is carried along in the learning process.

II. CONCLUSION
It is obvious that quality teacher production could not be possible without the required language skills and competence. ESP therefore, equips the students of science and technology with the required and needed English language knowledge and skills necessary for their academic and occupational purposes.

III. RECOMMENDATION
Based on the findings and conclusion of the study, the following recommendations are made:
1. Learners’ needs assessment should be conducted to students of science and technology in Colleges of Education with the view to identify their reasons for learning English.
2. There is need to incorporate English for Science and Technology (EST) as an independent course alongside General English (GE) to the students of science and technology.
3. Workshop should be conducted on ESP approach to the teachers who will handle ESP courses.
4. Enough time should be given to ESP courses in the timetable because it is activity-based which demands a lot of time and practice.

REFERENCES


