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**ENGLISH FOR SPECIFIC PURPOSES (ESP) IN NATIONAL BOARD FOR TECHNICAL
EDUCATION (NBTE) SUPERVISED INSTITUTIONS: A FOCUS ON NIGERIAN INSTITUTE
OF LEATHER AND SCIENCE TECHNOLOGY (NILEST), ZARIA**

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ABSTRACT

This article has discussed the definition of English for specific purpose (ESP) as given by some ESP specialist. ESP is both educational and occupational. It takes care of the academic subjects such as physics, Biology, Chemistry and professionals like Leather Technologists, computer programmers, Engineers etc. The goals of ESP are to meet the needs of the learner in the four language skills: Listening, reading, writing and speaking which make all humans fully functional in the society. ESP learners must observe the philosophical and methodological procedures of presenting information in form of report, experiment that will yield relevant professional communication. Graphs, symbols, charts and photographs are a useful hint in scientific language though with very few distinction in structure. Having discussed the relevance of ESP course in NILEST, some foreseen problems were mentioned and possible suggestions were also postulated.

KEYWORDS: English, Education, Leather Technologist, Communication

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INTRODUCTION

English language has been growing and passing through transition which has led to the fast movement away from the general English, to the current trend like English for specific purpose (ESP). English for Science and Technology (EST), English for academic purpose (EAP), English for occupational purposes (EOP), and the host of many other branches. It is based on the above, that the demand for English language with its various current trends have become pertinent.

The new orientations in English are a move towards more specific needs and purposes of the learners of English. It is assumed that the new orientations will take care of the short coming observed in the General English as a subject is unrelated and lack clear communication focus, with

emphasis on teaching about the language through excessive teacher- talk rather than learning the language,. Learning the language is done through the process of self-exploration and discovery.

English Language is one of the vehicles for enhancing Science and Technology, business, journalism, and medium of instruction is all institutions, official language of communication, etc. Nwoke in Palu (1991) state that: "as the demand for English was growing, it became necessary that it should be tailored towards communicative needs study..." of course, it is through the realization of the communicative needs of the learners that competence can be achieved. The learner's competence to handle communication in real life situation is very necessary. Competence in English language is lacking because the stipulated syllabus is

the final which does not take care of the learning needs of learners in language. Thus, the communicative competence needed to perform their daily tasks in the academics in most institutions, of learning are very low, NILEST inclusive.

NILEST, which is an Institute of Technology, needs to have a closer study of the new trends of English language and review their syllabus to embrace the new ideas. If that is done, there might be a positive change in the use of English for better communication in the target situation.

GOALS OF ESP

According to Okunnuga (1979:271), one of the main purposes for learning English should be that, the learner acquires the linguistic skills which are necessary for the study of Specific Purpose. These skills should provide the learners the tools for acquiring and verbalizing scientific and technical concepts.

The term English for Science and Technology (EST) was originated by Selinker (1976) to mean 'the written discourse of scientific and technical English'. EST according to Widdowson (1975) 'is best considered not as a separate operation but as a development form or an alternative realization of what has already been learned of existing knowledge'. That is, the learners come into the institutions with some basic knowledge of English and EST is just to -----that knowledge into specific need.

Mackary and Mount ford in Robinson (1980:8) suggested that, EST is both an occupational and education used of English: Occupational when we are considering the needs of Leather Technologists, Engineers, Computer programmers etc, educational when we consider schools, colleges and Universities students around the world studying Science subjects through the medium of English. Therefore, EST is geared towards the realization of Verbal and non verbal communication system in Science to be carried out in a real target situation.

Again Okunnuga (1979:271) listed the linguistic skills in order of priority as:

- a. Listening comprehension training in spoken scientific and technological English (Lectures)

- b. Reading comprehension and fast reading training to the satisfaction of Science and Technology Departments to facilitate intermediate study in Science and Technology.
- c. The ability to write scientific and technological English.
- d. The ability to speak scientific and technological English (tutorials, seminars, conferences.)

Thus the goals of EST are to meet the needs of the learner who have to listen to lectures and read textbooks for clarifying obscure points at lectures and finding information. The whole aim of EST is to groom the learners to listen carefully and attentively to the understanding of others; similarly, they should be able to read books, manuals, journals, etc and grasp the main information from such texts. And they should be able to express themselves well and effectively in writing to other readers.

SCIENCE AND TECHNOLOGY LEARNING NEEDS

The process of achieving communicative competence is one of the tasks that determine the learning needs in Science and technology that English, as a second language is expected to serve. There are certain concepts at the heart of scientists and technologists. Stevens (1977) pointed out that:

"Being a scientist or technologist entails learning a number of habits of thought, that these habits of thought directly affect his use of language, and that the scientist can only function as a scientist if he learns how to use language appropriately to these habits of thought".

Furthermore, Science involves certain philosophical concepts which are referred to as the methodology of Science. Still, Stevens in the same article gave the concepts in philosophy and methodology as:

PHILOSOPHICAL CONCEPTS	METHODOLOGICAL CONCEPTS
Discrimination and Description	Identify and difference in Characteristics, qualities, features, Processes, status And changes of states Qualification.
Classification	Taxonomies, Co-occurrence of Features, Distribution,

	comprehensiveness.
Inter-relationship	Causality, influence inter action
Explanation	Evidence, intuition, Hypothesis, Experimental Model theory.

(Adopted from Stevens 1977)

The chart involves recognition of how the concepts and procedures of Science and technology are expressed through communicative acts. These communicative acts include among others giving instructions, defining, classifying and so on. For instance in science, the learners will be familiar with sets of instructions as to how an experiment is carried out, with general accounts of how an experiment is conducted and of reports of particular experiments and their findings. All these require a mastery of English and vocabulary in the field of study.

EST is centrally concerned with developing the ability of the learners to process scientific and technical communication. It pre-supposes a stock of Vocabulary items, and functions which are common to the study of Science and Technology.

The Language of Science and Technology

An essential activity of scientific enterprise is the production, distribution and utilization of scientific knowledge. All these three aspects of Science activate involve these of language. In carrying out activities which lead to the production of scientific knowledge, we make use of verbal reasoning,. We describe and explain (report) to other people what they have found out from their scientific activities, all involve the use of language.

Science makes use of certain special words known as scientific terms and symbols, e.g. 'CU' for copper, 'Q' for female. The special words are mainly nouns used by all Sciences. Balogun (1979:299) has identified six noun groups:

1. Specific name s of animals, chemicals, capper, devices, materials, plants, rocks, etc. e.g.
2. Class (general) names – alkali, conductor, gases, halogen, flowers, fruit, liquids, matter, metals, solids steel, etc.
3. Names of processes – annealing, catalysis condensation, dehydration, electrolysis,

normalizing, photosynthesis respiration, riveting, etc.

4. Names of qualities – compounds, mixture parasitism, symbiosis etc.
5. Names of abstractions biosphere, gravity, momentum power, Velocity etc.

Clearly, some of the words used by scientists and technologists are highly technical terms such as halogen, fullering, swaging. Some terms are moderately technical like calorie, drilling, solder, rapour, gravity etc. While there are others with technical and other meanings: mass, culture, matter, reflection, spectrum threads, upsetting etc.

Certain verb is also used in addition to the nouns. These verb are grouped also by Balogun(1979) as follows:

1. Action verbs-(when things are cause to happen) apply, assemble, boil, braze, control, dessert, drill, dissolve, experiment, fuse, insert, measure, mix, remove, purity, solder, test, weight, etc.
2. Verbs of change-bend, burn, die, disappear, fuse, expand, spread, straighten out, swell, submerge, etc.
3. Verbs describing ways things move-creep, crawl, float, fly, hop, jump, run, etc.
4. Verbs describing sounds-bark, buzz, croak, hiss, hoot, rumble, squeak, etc.
5. Verbs of observation-feel, hear, listen, notice, observed, obtain, read, watch, etc.

Another pertinent point of interest is that, there are other words like subordinating conjunctions which are commonly used in science; e.g. after, because, before, if, until, when, whether, etc. pictorial information like graphs, charts, and photographs for part of language of science and technology. The scientist and technologist have to ask leading questions that will yield the expected result or answers, report analysis observation and so on.

EST and relevance to NILEST Courses

EST as earlier classified could be occupational and educational. The Institution (NILEST) is a technology institution and so technologists and science are important skills from the sciences through the general medium of

instruction-English. While the learners in this in this institution offer communication skill as a course, they need EST which is a branch of language that deals with the specific needs of the learners.

EST will help the learner to meet the three aspects of scientific knowledge need by the scientists; production, distribution and utilization. With EST been introduced, the learners would do better because they are given the right type of language needed.

Since EST has found its way into technology, it is a branch of language that will groom the learners for real practical world of work where they will eventually settle for life and living.

Freeborn (1993) cautioned that, to have acquired competence in communication includes not only the mastery of grammar and the lexicon, but also the rules of speaking. For example, knowing when it is appropriate to open a conversation and how, etc. Therefore, it is incumbent on the technician to bring to use the relevant skills and functions of language when he needs to interact with the practical world.

The knowledge of EST and indeed the language of the operational zone will help the technician to select the apt world to suit the characteristics of the target situating or audience. The language to be used is determined by the target situation and the audience (Richard and Schmisdst 1983). EST helps the learner to be critical, sometimes even skeptical about what they are told or heard especially when wrong terms are used.

EST in NILEST will help the learners to be conscious of what they really need the language for. The learners would be able to carry out some of the needed or basic assignments with ease. Asking question – with EST introduced in NILEST course, the learners would acquaint themselves with asking questions which is a very useful device in learning especially in the sciences. Besides, Science really consists as of asking questions about nature and getting answers. Since NILEST deals with natural materials, specific questions related to such materials like hiked and skins could be asked following the forma.

Experimentation and observation questions – as technician in training. They need to describe as

“do-and-see” question. These include questions like, what will happen if I/YOU/ WE/...? ‘can I/you make this thing change?. When does it? ‘how are you going to?

Measuring and counting questions – how many kgs of skins can the drum carry?. ‘how often does this process happen?. These questions require facts and figures. Reasoning questions – why did you carry out this procedure?, ‘what is the reason for this action?, ‘why’ did you give that reason?’, thus, these types of questions require the learners to give reasons (justification), or describe the purpose or function of the activities being or already carried out.

Report–Science and Technology curse predominantly use the written language. However, there are some general patterns of reporting which may be sued in written form. In describing experimental procedure, the most common form is the passive voice – cold water was put in a beaker and it was heated. In reporting results, it wills reads, ‘the water evaporated after heating for some time. And reporting conclusions, what must have been learned from the science activities is what is reported – when water is heated, it evaporates.

Other aspects of language relevant to scientist are explaining the results, and conclusion, productions form observation describing natural and man-made objects and describing events and processes. All the forms are very relevant to technicians especially in NILEST. There courses all are sciences and if that is done, then the learners would have wider scope of their talents through the aid of EST.

Likely problems that might affect EST programme in NILEST

Likely problems that might be encountered in the teaching/learning of EST programme in Nilest are:

- Lack of adequate and professionally trained EST practitioners.
- Lack of a definite structural approach for a sequenced scheme to be used in designing EST course.
- Lackof in adequate resource available such as authentic materials, specified texts etc.

Lack of an acceptable evaluation instrument.

Possible Suggestions to the Problems

The problem of lack of adequate and professionally trained EST practitioners will be greatly minimized if as Ewer (1969) suggested that retraining programmes be provided by the educational bodies and institutions for the existing teachers of language. That is done through in-service and pre-service training programmes to keep the teachers to the current and new orientations in language teaching. Stevens (1977) further suggested that educational bodies and universities should incorporate EST course in their higher degree programmes.

Lack of definite structural approach, the EST practitioner should design relevant and appropriate course by using approaches that could produce the best course for its students. Such could be needs survey, factual analysis, discourse analysis, etc. also existing materials should be reviewed and up dated to meet the current trends changes in EST programme to meet the learning needs of learners.

Similarly, lack of resources could be minimized by a survey of the present state of EST in NILEST to ascertain material that are available, presently non, not even a single one. EST journals could be negotiated for, though they are forming materials. Also the EST practitioner should be a material writer and an adaptor. As a solution to the problem of evaluating, Widdowson, Ewer, Stevens and the ESP/EST specialists have agreed that, EST is task oriented; therefore, a student on EST course is tested when he is asked to perform the task which the EST course had prepared. The test may be essentially in formal. An activity based type of test is also good. Self-directed discourse should make room for self-assessment. Alderson and Waters wrote in Olaofe (1994) that testing ESP/EST is relatively neglected area that only a limited number of articles have been published in the area of ESP testing and it also applicable to EST which is a branch of ESP.

Conclusion

The aim of this paper is to discuss the new orientations in language and with focus on NILEST. Since EST has found its way into Science and

Technology, it is advised that the NBTE accredited institution should review their communication skills syllabus and incorporate EST into the syllabus in order to move along with the developed world. Also, teachers of communication skill should be included in the NBTE curriculum design committee in or to effect change for both the learners and the teachers.

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