Teaching and Learning of Technical English

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Objective of the talk

- This talk is to distinguish the differences between General English (GE) and Technical English (TE). First, it tries to fix the place of Technical English in ELT, and attempts to trace the purposes of learning the two varieties i.e. General English and Technical English, in the process shows how learning of TE can promote active participation in classroom activities, technical seminars, workshops and research paper publications or in short how the learning of TE enables the learner use English for technical communication.
AIM of Technical Languages

- amplifying the quality of language studies and there by higher education as well. The development of language skills aims at active expansion of learners’ proficiency in English.

- In the global context, students at engineering institutions need a specific set of language skills for their success in education and in career. Language classes at this higher level always make use of the texts of specific professional areas (architecture, business, civil engineering, computer). Such texts are usually focused on the communicative needs of the learners.

- To meet global needs, language teaching approach called **English for Specific Purposes (ESP) or TE** is introduced.

- It is centered not only on the language (grammar, lexis, register), but also on the skills and discourses that combine the development of linguistic skills together with the acquisition of specific information.
Characteristics of Technical English

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, and register), skills, discourse, and genres appropriate to these activities.
Variable Characteristics of Technical English

- 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 likely to be designed for adult learners, either at a tertiary level institution or in a professional work situation. It could, however, be for learners at secondary school level;
- ESP is generally designed for intermediate or advanced students;
- Most ESP courses assume some basic knowledge of the language system, but it can be used with beginners.
The basic tools for Gen. English and English for Specific Purpose may remain the same. That is, the time-specifying components (Tense and Time), the vocabulary for communicating meaning - asking for permission, expressing grief or joy, the prepositions, but here the similarity ceases. The ESP is more focused, more oriented towards what we want to have or convey. Business English has typical words and the ways to use them, which we do not use in the ordinary, daily manner. An Engineer's need for communicating his ideas and views makes him find special words - jargon -, likewise a doctor needs a different range of words to speak about the patients' health. This is ESP, which we do not use in our daily dealings. The words that we use in our ordinary transactions take on a different meaning in Technical English or in Medical English.
Importance of GE and TE

- Only on acquiring the necessary command over general English (GE), the learner is encouraged to move ahead with technical English (TE). Eventually the knowledge and competence he gains through GE enables and ensures sustained interest in the learning and usage of TE, resulting in the assertive use of TE at workplace.

- The success mantra today is sound technical knowledge and presence of mind complemented by proficient communication skills.

- Knowledge of English thus gained facilitates the access to the resources of new information and promotes active participation in various interdisciplinary cooperative programs at the international level that may require academic knowledge, scientific competence and objective evaluation of new ideas.

- One can understand from this discussion that teaching or learning ESP includes much more than the teaching of English through specific material and content.

- Hence it can be stated that GE is the foundation of TE and they are different from each other in the sense that they are used to serve different purposes.
According to the Finnish survey, their foreign language communication situations in different occupations are as follows:

<table>
<thead>
<tr>
<th>Communication situations</th>
<th>Engineers (%)</th>
<th>Technicians (%)</th>
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<tbody>
<tr>
<td>1 Talking about oneself and one's work</td>
<td>70</td>
<td>48</td>
</tr>
<tr>
<td>2 Travel</td>
<td>80</td>
<td>71</td>
</tr>
<tr>
<td>3 Social situations (introduction, small talk)</td>
<td>90</td>
<td>80</td>
</tr>
<tr>
<td>4 Routine telephone calls</td>
<td>85</td>
<td>52</td>
</tr>
<tr>
<td>5 Client contacts</td>
<td>70</td>
<td>42</td>
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<tr>
<td>6 Hosting visitors visiting companies</td>
<td>77</td>
<td>40</td>
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<tr>
<td>7 Describing a process or working methods</td>
<td>70</td>
<td>57</td>
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<tr>
<td>8 Discussion on deliveries, installation, maintenance</td>
<td>68</td>
<td>60</td>
</tr>
<tr>
<td>9 Fault analysing, solving problems</td>
<td>67</td>
<td>60</td>
</tr>
<tr>
<td>10 Tutoring a new employee</td>
<td>39</td>
<td>22</td>
</tr>
<tr>
<td>11 Reading manuals, instructions</td>
<td>80</td>
<td>78</td>
</tr>
<tr>
<td>12 Reading Company documentation</td>
<td>61</td>
<td>24</td>
</tr>
<tr>
<td>13 Writing email messages, faxes, notes</td>
<td>72</td>
<td>28</td>
</tr>
<tr>
<td>14 Writing, documents</td>
<td>60</td>
<td>20</td>
</tr>
<tr>
<td>15 Giving a presentation</td>
<td>37</td>
<td>20</td>
</tr>
<tr>
<td>16 Meetings, negotiations</td>
<td>68</td>
<td>26</td>
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Solar Water Heater
Flow Chart: Solar Water Heater

- Cold water goes into the system.
- Warm water enters the water tank.
- Water becomes warm in the panel.
- Warm water flows to the shower.
- Water goes from the tank to the panel.
- The valve opens.
- Cold water enters the water tank. 
- Warm water goes out of the panel.
How to Read a Computer Ad.

1. Intel Pentium 4 processor (3GHz, 800MHz FSB)
2. Mini-tower chassis
3. 1GB dual channel DDR2 SDRAM
4. 200GB Serial ATA hard drive (7200 r.p.m.)
5. 128MB PCI-Express video card
6. Integrated audio
7. 48X CD-RW drive
8. 19” TFT flat panel XGA (1024 x 768) monitor
9. Microsoft Windows XP Professional
Abbreviation of Computer Terminology

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<tbody>
<tr>
<td>1</td>
<td>CD-ROM</td>
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<tr>
<td>2</td>
<td>TFT</td>
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<tr>
<td>3</td>
<td>MB</td>
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<td>4</td>
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<td>5</td>
<td>FSB</td>
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<tr>
<td>6</td>
<td>SDRAM</td>
</tr>
<tr>
<td>7</td>
<td>XGA</td>
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Taxonomy of vocabulary relative to ESP

- The vocabulary of quality: (reliable, low-cost, affordable, failure, improve, etc.)

- that of users manuals: (check, fasten, perform, avoid, supply, fit, insert etc.)

- that of basic computing (hardware - software word processor - spreadsheet - hacker - byte - data digit).
Different types of devices
Operation on EPBOS

1. Item.
2. Barcode to branch computer.
3. Branch computer searches stock file for product.
4. Branch computer records that one of these products has been sold.
5. Price and description to EPOS till.
6. Item and price shown on digital display and printed on receipt.
Taxonomy of vocabulary relative to ESP

- these words may have high ambiguity, which may make them difficult to understand, since the exact meaning is not always immediately perceivable even to the L2 learner who knows the word.

- Even such a usual verb as *clean* can be a problem: a mechanics will clean a carburettor, an electrician can clean a wire, while a farmer cleans a field or a ditch!

- One should not forget that a word may have very different semantic fields and belong to several categories at the same time. Take this usual noun a plate. It belongs to general English when you think about kitchenware or about your car's licence plates. But it is specialised vocabulary when used in the printing, electrical or building on its meanings and uses.
Harding (2007) stresses that the general skills that a general English teacher uses e.g. being communicative, using authentic materials and analyzing English in a practical way are also applicable to ESP. He suggests that teachers should:
- Think about what is needed and don’t just follow an off-the-shelf course or course book;
- Understand the nature of their students’ subject area;
- Work out their language needs in relation to their skills;
- Use contexts, texts, situations from their subject area;
- Use authentic materials;
- Make the tasks as authentic as possible;
- Motivate the students with variety, relevance and fun;
- Take the classroom into the real world and bring the real world into the classroom
The major difference between the teaching of Technical English and that of General English will normally be in the choice of contexts for listening and reading texts and in the choice of lexis in grammar and vocabulary exercises.
They thus gain productive skills from simplicity to complexity and from generality to specificity i.e. the content inputs get more and more technical, the language inputs in the contents grow more and more specific.

Technical English serves various purposes and some of the important needs are listed below:
1. Reading Specialist literature
2. Sharing information in conferences
3. Listening for specific information
4. Meeting the workplace requirements
Only on acquiring the necessary command over GE, the learner is encouraged to move ahead with TE. Eventually the knowledge and competence he gains through GE enables and ensures sustained interest in the learning and usage of TE, resulting in the assertive use of TE at workplace. Workplace requirement has now become much more demanding and complex. The success mantra today is sound technical knowledge and presence of mind complemented by proficient communication skills.

Hence it can be stated that GE is the foundation of TE and they are different from each other in the sense that they are used to serve different purposes.
Thank you