Introduction
ESP is a growing area of EFL at tertiary level in Japan. In ESP, the appropriateness of teaching materials is a crucial factor (Canale & Swain, 1980) of the success of curricula and learning. Theoretically, the most appropriate teaching materials should be developed by the ESP programs and/ or ESP practitioners for the specific group of students based on reliable needs analysis. In reality, however, commercially available teaching materials are used by many ESP courses due to various factors such as limited resources and time. Some reputable textbooks are developed by professionals and expert writers in the fields and can support the teachers lacking the expertise in students’ fields of study. However, teaching material is a problematic area (Gatehouse, 2001). It is even regarded as an educational failure. The cause of this failure is considered either to be the textbook itself or the ESP practitioner who choose the textbook (Swales, 1989). Due to lack of experiences (Porcari, 2015), some ESP teachers are likely to choose inappropriate teaching materials. The inappropriate choices could be following the mistaken choices:

* Mismatch in proficiency level, i.e. materials are either too difficult or too easy.
* Mismatch in course area
* Mismatch in structure and textbooks, e.g. textbooks are mostly designed for students to use in one year for local contents. They do not match skill-based syllabus.
* Mismatch in teacher’s interests and students’ interests.
* Mismatch between course goals and evaluation of students achievements

The above-mentioned potential problems indicate why choosing appropriate materials is not only necessary but also essential especially for low level EFL students. It is equally important for ESP practitioners to adopt a flexible approach to selecting teaching materials. When mismatch happens caused by compulsory teaching materials such as textbooks, ESP practitioners must be equipped with a variety of teaching materials, e.g. reference books, online sources, real life materials in students’ field of study and utilization of students’ choices of their own materials to study. Equipped with these choices, ESP practitioners can make a quick fix of any problems caused by inappropriate teaching materials. In addition, the benefit is that most updated content materials could be implemented. Another benefit is, in this process, students’ motivation could be improved. Currently in Japan, there are many published materials, such as textbooks, ESP reference books and professional courses. However, systematic evaluation of such materials is lacking which poses difficulties to ESP practitioners when choosing ESP textbooks. This research aims to focus on ESP material analysis for two reasons. First, teaching materials are considered by researchers from various researches to be very important to students’ needs in ESP (Edwards, 2000). Second, disciplinary needs and subject content are also regarded to be crucial (Butcherson & Waters, 1987). Thirdly, the results of a systematic overview and evaluation of the existing textbooks for EST (English for Science and Technology) courses at tertiary level in Japan are reported.

Methods
- Systematic investigation on curricula, available, published or commercial EST teaching materials for EFL students at Japanese universities is conducted.
- The following aspects are used as a framework to categorize, document, analyze and evaluate the textbooks:
  - type of syllabus
  - main content areas
  - target proficiency level
  - types of test and language (e.g. authentic, simplified scientific reading)
  - focus of language skills
  - main types of language exercises and activities for various purposes
  - supplementary materials
  - Textbooks are grouped into two groups:
    - textbooks of basic level
    - textbooks of intermediate level
  - Subsequently, the analysis of one of the main textbooks adopted by the Technical English program of UEC Tokyo is done using similar categories as mentioned above.

Discussion and Conclusion
- Limited EST materials compared with general EFL textbooks in Japan
- Lack of commercialization: difficult to build EST programs
- Benefits to use content-based textbooks for teachers without specified knowledge of the students: the same results by Chaitrai, et al. (2013)
- Less English-only ESP textbooks than bilingual ESP textbooks at basic or introductory level
- Topical and grammar-based syllabuses: more common
- Need to consider the balance between content area and language competencies of the textbooks
- Need to have more discussion-based, critical-thinking-based, and skill-based activities

References
Gatehouse, K., “Key Issues in English for Specific Purposes (ESP) Curriculum Development,”

A Systematic Evaluation of EST Textbooks in Japan

YU Yan
Division of Informatics and Engineering
University of Electro-Communications (UEC Tokyo)
School of Global Studies, Tama University
yu@tama.ac.jp

SHI Jie
Graduate School of Informatics and Engineering
University of Electro-Communications (UEC Tokyo)
shi.jie@uec.ac.jp

1. Main results of basic level

<table>
<thead>
<tr>
<th>Type of Syllabus</th>
<th>Number of Textbooks</th>
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<tbody>
<tr>
<td>topical</td>
<td>8</td>
</tr>
<tr>
<td>ESP gives-based</td>
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</tbody>
</table>

2. Main results of intermediate level

<table>
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<tr>
<th>Target Level</th>
<th>Number of Textbooks</th>
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</thead>
<tbody>
<tr>
<td>intermediate</td>
<td>7</td>
</tr>
<tr>
<td>intermediate upper</td>
<td>4</td>
</tr>
<tr>
<td>intermediate advanced</td>
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</tr>
</tbody>
</table>


Target students: Professional engineers, Students of engineering

Medium of Instruction: English

Types of Syllabuses: Topical (Theme-based)

Main Content Areas:

Target Level: Intermediate of upper intermediate (B1 to B2 in the Common European Framework)

Types of Text and Language:
- Authentic, scientific and technical literature, simplified scientific readings, short genre-based texts, lots of charts or graphs

Main Types of Exercisical activities:
- Filling in blanks using words or charts, and report of designated concepts, grouping words and concepts, T or F matching, spelling games, replacing expressions in texts with alternative words and phrases, completing texts with correct words

Appendixes: 15 Three-dimensional drawings, Shapes, Units of measurement, Chemical elements, Structural elements and types of load, Moments, Vapor, cooling and thermal inertia, The electromagnetic spectrum, Pipes and hose fittings and valves, Static action, Managing rotary motion, Electronic and electrical components, Sonnet, measuring and regulating devices

Index: Yes

Fig. 1: Main Content Areas

Fig. 2: Main Types of Exercises/Activities

Fig. 3: Main Content Areas

Fig. 4: Target Level

Fig. 5: Types of Text and Language

Fig. 6: Main Types of Exercises/Activities

Fig. 7: Main Content Areas

Fig. 8: Target Level

Fig. 9: Text Types & Language

Fig. 10: Main Types of Exercises/Activities