ENGLISH FOR OCCUPATIONAL PURPOSES: ELASTOMER ENGLISH

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TABLE OF CONTENTS

LIST OF FIGURES ........................................................................................................ vi

ACKNOWLEDGEMENTS .......................................................................................... vii

CHAPTERS

I. ABSTRACT ................................................................................................................. 1

II. INTRODUCTION .................................................................................................... 2

III. ENGLISH FOR OCCUPATIONAL PURPOSES EXPLAINED

   English as an International Language ................................................................. 5

   General English, ESP, EAP and EOP ................................................................. 6

   The Need for EOP .............................................................................................. 7

IV. EOP IN THE ELASTOMER INDUSTRY

   The History of EOP in XYZ Institute ................................................................. 10

   The Initial Process—Needs Assessment ............................................................... 12

   The Structure of Semester One ......................................................................... 16

   My Work in Semester Two

      Teacher’s Guide ............................................................................................... 19

      The Overall Lesson Sequence ........................................................................ 21

      Individual Sequence of Activities ................................................................. 21
Characteristics of Elastomer English Lessons

V. CONCLUSION

REFERENCES

APPENDICES

A. COUNTRY G’S SKILLS STANDARD

B. SEMESTER TWO NEEDS ASSESSMENT

C. ELASTOMER ENGLISH TEMPLATE

D. ELASTOMER ENGLISH LESSON 1

E. ELASTOMER ENGLISH LESSON 1 TEACHER’S GUIDE

F. ELASTOMER ENGLISH LESSON 2

G. ELASTOMER ENGLISH LESSON 2 TEACHER’S GUIDE

H. ELASTOMER ENGLISH LESSON 3

I. ELASTOMER ENGLISH LESSON 3 TEACHER’S GUIDE

J. ELASTOMER ENGLISH LESSON 4

K. ELASTOMER ENGLISH LESSON 4 TEACHER’S GUIDE

L. ELASTOMER ENGLISH LESSON 5

M. ELASTOMER ENGLISH LESSON 5 TEACHER’S GUIDE

N. ELASTOMER ENGLISH LESSON 6

O. ELASTOMER ENGLISH LESSON 6 TEACHER’S GUIDE

P. ELASTOMER ENGLISH LESSON 7
Q. ELASTOMER ENGLISH LESSON 7 TEACHER’S GUIDE………………..148
R. ELASTOMER ENGLISH LESSON 8……………………………………..156
S. ELASTOMER ENGLISH LESSON 8 TEACHER’S GUIDE……………167
T. ELASTOMER ENGLISH LESSON 9……………………………………..175
U. ELASTOMER ENGLISH LESSON 9 TEACHER’S GUIDE……………187
V. ELASTOMER ENGLISH LESSON 10……………………………………..192
W. ELASTOMER ENGLISH LESSON 10 TEACHER’S GUIDE……………202
LIST OF FIGURES

CHAPTER III. ENGLISH FOR OCCUPATIONAL PURPOSES EXPLAINED

FIGURE 1. The tree of ELT.................................................................7

CHAPTER IV. EOP IN THE ELASTOMER INDUSTRY

FIGURE 2. Lesson 1 Reporting a Lab Accident............................24

FIGURE 3. Lesson 3 Making Comparison......................................25
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Abstract

Within the general field of English for Specific Purposes (ESP), English for Occupational Purposes (EOP) has gained much attention in recent years due to its emphasis on language training for job performance. This thesis is a creative project of designing EOP lessons for an elastomer technician training institute in the Middle Eastern region—where English is taught as a foreign language. The EOP lessons in this thesis highlight the key features of EOP design as well as academic and technical knowledge in the elastomer industry.
English for Occupational Purposes: Elastomer English

Introduction

On September 13, 2015, Dr. Mark Foster, the Associate Dean for Programs, Policy, and Engagement of the Department of Polymer Science of the University of Akron, approached me with a unique opportunity to be a part of a team to design and develop English for Occupational Purposes (EOP) lessons. The EOP lessons are designed for an occupational training institute for elastomer technicians in the Middle Eastern region. Prior to this conversation, I had only vaguely heard about English for Occupational Purposes (EOP) as an emerging field in Teaching English as a Second Language (TESL) in my undergraduate coursework. After a brief conversation with Dr. Foster, I had the opportunity to speak to Ms. Anne Lomperis—the EOP consultant of the project—who introduced me to this whole new world of EOP. In Ms. Lomperis’s two-day-training, I was introduced to the structure of English language training:

1. English Language Training
   a. General English
   b. English for Specific Purposes (ESP)
      i. English for Academic Purposes (EAP)
      ii. English for Occupational Purposes (EOP)
Having learned about General English and English for Academic Purposes (EAP) during my undergraduate coursework, I was intrigued by this new field of TESL that serves a more specific and defined group of learners. As I discovered more about the interdisciplinary nature EOP, I decided to accept this rare opportunity to design EOP lessons. I am very interested in learning more about language curriculum development in the job market and how I could apply the theories and practices I have learned in my undergraduate coursework in a real-world educational context.

Language, as one of the most straightforward and important tools of communication, plays an unequivocal and critical role in the job market. Therefore, proficiency in English—a lingua franca in many multinational companies and cross-national industries—is key to achieving high economic efficiency as well as maintaining a safe working environment. The goal of this project is to provide good EOP training to elastomer technicians for the emerging elastomer industries in the Middle East region, so that elastomer technicians can excel in their daily job task performance in English. Due to the multifaceted nature of EOP, this project involves many individuals from consultants, language providers, language instructors, content instructors, to elastomer experts, and many other professionals. The bulk of the work completed in this project is a result of a collaboration between people and resources from different professions and continents.

Because the development of EOP lessons for the occupational training institute is an ongoing project that will last for at least two semesters, until the end of August, 2016, this thesis project is merely a fragment of the actual EOP lessons that have been and will be developed for two semesters. Also, it is by no means an end product nor the perfect
version of an EOP lesson. However, this thesis project serves as a record of my journey of learning in the field of EOP, as well as a snapshot into how EOP takes its form and shape in the elastomer industry.

This thesis project was done as part of work for hire with the University of Akron. As a result, pseudonyms are used in the rest of the thesis to protect the confidentiality and privacy of the institute and individuals who are involved in the project. In the following paragraphs, I will describe in detail the process of designing EOP lessons and the TESL pedagogy and approaches that are interwoven in these lessons.
English as an International Language

With the increasing interaction and integration between countries and cultures due to globalization, a need for a common language is necessary and inevitable in order to achieve mutual understanding and effective communication. For various reasons, most notably the influence of the British Empire in the colonial period and the economic power of the United States in the post-war world, English has risen to its current position as an important international language. As the language of international business, science, technology, aviation, politics and diplomacy, English is ubiquitous. As a result, the need for learning English has become not only practical but also essential to participate and perform in a global job market. As Dan Kim (2008) illustrated in his book *English for Occupational Purposes: One Language?*,

...a doctor from India working at a U.S. hospital not only has to have good medical skills but also has to know how to deliver a diagnosis to an American English speaking patient efficiently and compassionately. An employee in marketing at a multinational cosmetic company in Korea has to learn how to convince his French supervisor of the effective ways to approach Korean female customers with their new cosmetic product—and since the two share English in common, the communication is done in English. (p. 1)
Consequently, this phenomenon gave rise to a new generation of adult learners who need English and, most importantly, know why they need it (Hutchinson and Waters, 1987).

**General English, ESP, EAP and EOP**

A “one-size-fits-all” General English instruction—an approach often used in Teaching English as a Second Language (TESL) and Teaching English as a Foreign Language (TEFL), focusing on coping skills, essential functioning of daily lives, and pre-academic skills—often fails to meet adult learners’ specific language needs in the work place. Consequently, the field of English for Specific Purposes (ESP) emerged to address the language and conventions needs of different disciplines and professions. As English language teaching continues to develop in the field of TESL, two separate strands of language teaching, namely English for Academic Purposes (EAP) and English for Occupational Purposes (EOP), were established under the umbrella of ESP. EAP is geared towards learners who are studying to enter professions focused on academic language, whereas EOP is tailored for those who are already employed, with an emphasis on the language used in job performance. This history of EAP and EOP is clearly illustrated in following image from Hutchinson and Waters (1987).
The Need for EOP

Traditionally, General English instruction has focused on describing the general rules and forms of English use, also known as the grammar. However, in the past few decades, language instruction has shifted from students memorizing the conventional features of language usage to researchers discovering the ways in which language is
actually used in real-life contexts (Widdowson, 1978). Stemming from this desire to design language instruction that caters to learners’ needs to communicate effectively in authentic and work-related contexts, many language professionals have found that language use and needs vary significantly in rhetoric, register, and discourse depending on discipline and profession. This considerable difference in language use was illustrated by Anne Lomperis (2010) in a case study of an Avianca jetliner crash in January, 1990—an accident that was mainly caused by a misunderstanding of terminologies and language use:

Avianca Flight 052 departed Medellin, Colombia, for New York City, USA, on January 25, 1990. It was delayed 77 minutes en route by bad weather and ran low on fuel. The crew notified the control tower that they were “just running out of fuel” and needed priority, but they never used the technical terms that signaled an emergency: “minimum fuel” or “emergency fuel”…Six minutes later, they radioed that they’d just lost two engines and needed priority. The controller cleared the plane to approach and asked if they had enough fuel to land. There was no response. The plane crashed, killing 73 people on board, including the pilots (Lomperis, 2010).

As illustrated by the case study, there is a critical difference between a day-to-day phrase “running out of fuel” and the technical terminologies “emergency fuel” and “minimal fuel” used in the aviation industry. The phrase “running out of fuel” would be broadly understood by many industries as well as the general public in an everyday usage, but it does not necessarily trigger an emergency protocol in the aviation context. In this case
study, the failure to recognize this important distinction resulted in an unfortunate event. Although the above illustration is an extreme case, it does show language trainers the importance of addressing specific language needs and usage in different disciplines and industries. Hence, EOP has risen to fulfill this particular industrial need for occupational language training.
The History of EOP in XYZ Institute

Country G (pseudonym is used to prevent direct identification) is a Middle-eastern, Arabic-speaking country that recently decided to expand its elastomer, i.e. synthetic rubber, industry as a means to diversify its economy and to provide new job opportunities for its growing young adult population. Therefore, XYZ institute (pseudonym) was established, in collaboration with the University of Akron, to train young, high-school graduates from Country G who want to venture into the elastomer industry as elastomer technicians. These high-school graduates go through an initial screening for their achievement scores in Science and Mathematics before enrolling in XYZ institute as elastomer technician trainees (ETTs). They will attend five semesters of training in elastomer-based academic and technical contents in the span of approximately two-and-a-half years before they graduate as elastomer technicians.

Because elastomer is a new industry in the Arabic-speaking world, there are not many elastomer-related resources in Arabic, and like many other fields in science and technology, most of the training materials related to the elastomer industry are available only in English. Additionally, when the learners graduate from XYZ institute, they might be hired by multinational or foreign companies that normally use English as the medium of communication. Therefore, the ETTs need English to acquire elastomer knowledge at
XYZ institute as well as to communicate effectively when they are hired as elastomer technicians. Consequently, XYZ institute has decided to incorporate intensive English language training in the first two semesters, so that ETTs would be prepared to learn elastomer-related academic and technical contents that are presented in English.

Initially, XYZ institute adopted the General English approach in its intensive English courses. However, the program coordinators and instructors soon realized the shortcomings of General English in meeting their specific language functions and needs simply because General English is not designed for learners in the elastomer industry. For example, the program coordinators realized that General English textbooks do not contain language of safety and cautioning—which is one of the most important language functions in the elastomer industry because the industry deals with many kinds of machinery and equipment that requires a high level of safety awareness. Therefore, when EOP was introduced to the program coordinators and instructors through Ms. Anne Lomperis and other EOP experts, XYZ institute soon adopted the EOP model for its intensive English courses.

Because so many professions have adopted the ESP model of English language teaching, resources and teaching materials for Business English, English for engineering, science, technology, and other service industries, are in abundance. However, there are no ESP/EOP textbooks or teaching materials in the elastomer, i.e. synthetic rubber, industry. As a result, the University of Akron hired a team of elastomer and language professionals from the United States and Country G to design two semesters’ worth of Elastomer English lessons for the ETTs in XYZ institute. With the collaboration among
Ms. Anne Lomperis, elastomer professionals and elastomer English instructors in Country G, a basic structure and a few sample EOP lessons were created for semester one of Elastomer English. However, the program coordinator realized that a large number of EOP lessons still need to be created for semester two. As a result, I was hired by the University of Akron as a part of a team to design comprehensive EOP language training lessons for the Elastomer English courses in semester two at XYZ institute.

**The Initial Process—Needs Assessment**

As mentioned above, the foundation of EOP is very much grounded in the needs of the learners—which are often influenced by the needs of the institute, the industry, or even the country. Therefore, we utilized a variety of resources and methods to understand the needs of the learners, institute, industry, and country.

According to Hutchinson and Waters (1987), the most frequently used methods to conduct an needs analysis are questionnaires, interviews, observations, data collection, and informal consultations with sponsors, learners and other stakeholders. Ideally, a good needs analysis should be as comprehensive as possible in order to have a well-rounded understanding of the organization’s and learners’ needs. However, due to time and geographical constriction, I could not travel to XYZ institute personally to conduct detailed class observations or communicate with learners directly. Instead, questionnaires (see Appendix B), data collection, and informal interviews with language instructors, elastomer experts, administrators, program coordinators and consultants were continually conducted to understand learners’ needs and progress.
In order to understand the learners’ classroom and working environment better, I designed a questionnaire for both the instructors as well as the learners (see Appendix B). Due to various circumstances, I was not able to obtain learners’ direct input from the questionnaire. However, a few elastomer professionals as well as technical content instructors have assisted me greatly by providing detailed answers to my questions and important materials to understand what language functions learners will encounter in the classroom and the workplace. Due to the large amount of materials and data obtained, I could not include every item in this thesis.

Besides the questionnaire, other data is continually gathered from the ongoing conversation with other stakeholders involved—from email correspondences to video conferences to visiting an elastomer workshop at the University of Akron—and the data gathered are used in the EOP curriculum design for XYZ institute.

One of the most important pieces of information is Country G’s Skills Standards in the energy and chemical industry (see Appendix A) that outlines the range of tasks performed by an elastomer technician. This piece of information was provided by Ms. Anne Lomperis, the EOP consultant and my mentor in this project.

According to the Country G’s Skills Standards in the energy and chemical industry, the range of tasks performed by an elastomer technician includes the following:

1. Preparing elastomer compound recipes and weighing out ingredients
2. Using internal mixers and mills to combine elastomers with other ingredients to make elastomer compounds
3. Using laboratory equipment to produce samples appropriate for testing and quality control
4. Operating curing presses to produce cured elastomer compounds
5. Sampling from elastomer polymer production units
6. Testing elastomer and elastomer compounds before and after curing according to standard procedures
7. Cleaning and preparing all equipment before and after use
8. Operating and carrying out routine maintenance on laboratory equipment used in the production and testing of elastomer compounds

From here, the *Common European Framework of Reference for Languages: Learning, Teaching, Assessment (CEFR)* was used to assess the institute’s language proficiency goals for the ETTs by the end of five semesters. The picture below is one of fifty-three categories in the CEFR that describes what learners can do at different proficiency levels (A1 being the lowest and C2 being the highest).

<table>
<thead>
<tr>
<th>OVERALL ORAL PRODUCTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>C2</td>
</tr>
<tr>
<td>C1</td>
</tr>
<tr>
<td>B2</td>
</tr>
<tr>
<td>B1</td>
</tr>
<tr>
<td>A2</td>
</tr>
<tr>
<td>A1</td>
</tr>
</tbody>
</table>
The program coordinator was asked to rank on a scale of 1 – 5 (1 being the least important and 5 being the most important) the importance of each language function in these fifty-three categories that encompass the four language modalities—speaking, listening, reading and writing. A summary of the CEFR analysis shows that level A2 is the overall goal for semester two and B1 is the goal for semester five, with cooperating, describing problems, and precision of vocabulary being important and with speaking and listening more important than reading and writing.

The information and data mentioned above have provided me with the general framework of the job tasks involved in an elastomer industry. After understanding the kinds of job tasks that would be performed by the ETTs, the next question that I had to ask was what language ETTs need in order to accomplish those tasks successfully. At Ms. Lomperis’ suggestion, I have used the notions and functions index from *The Threshold Level for Modern Language Learning in Schools* and *Notional Syllabuses*, by J.A. van Ek and David Wilkins respectively, to determine the language function and notion of the elastomer job tasks involved. Authentic input and materials from Ms. Lomperis, Elastomer English instructors, and elastomer experts were extremely crucial for analyzing the language functions required in the job tasks. Some authentic input and materials that I have used include lab injury report, test data sheets, images and videos of lab and classroom facilities, tools, equipment, safety manuals, safety signs, workshop floor plans, and rubber recipes. Ongoing conversations with instructors, program coordinator and elastomer experts is also vital for understanding the communicative situations involved in the workshop. After months of close analysis of the materials listed
above, I realized that the language functions in the elastomer industry pertaining to XYZ institute generally involves reporting factual information, asking for information, giving and seeking permission, suggesting a course of action, requesting and advising others to do something, and warning others to refrain from doing something.

**The Structure of Semester One**

In semester one, most of the lessons were created by Ms. Lomperis and the Elastomer English instructor at XYZ institute. Because I was recruited in the middle of semester one, I did not participate much in the process of creating the lessons. Instead, I was given the opportunity to edit, proofread, and make suggestions on the lessons in semester one as a means to learn more about EOP and the elastomer industry.

As our EOP program consultant, Ms. Lomperis created a template for our EOP lessons for semester one and semester two (see Appendix C). Below is an example of the structure of Ms. Lomperis’ template:

1. Job task objectives
   a. Key business/impact factors
      i. Administration
      ii. Operations
      iii. Social responsibility
      iv. Human resources
   b. Key questions

The sub-categories under the key business/impact factors are important business and corporate elements in the elastomer industry that help an elastomer technician to perform
efficiently in his or her job. A good elastomer technician should have the linguistic tools to fulfill his administrative, operational, and social responsibilities. Having the linguistic ability to communicate with the human resource department is also a vital skill for an elastomer technician.

Because the topic of each lesson varies, the key business factors vary as well. For instance, a lesson that focuses on reading gauges (see Lesson 2: Reading Gauges in Appendix F), emphasizes on operations and the social responsibility of warning others about the correct usage of gauges. Another lesson that focuses on reading a work schedule (see Lesson 5: Reading a Work Schedule in Appendix L), highlights the importance of reading a work schedule in order to communicate to the human resources department regarding a sick leave and a request for a change in schedule.

Following the key business/impact factors, Ms. Lomperis also included key questions that need to be addressed throughout the lesson. The key questions are adapted from the key business factors, and they help the lesson designer and the instructor focus on the objectives and how the lesson activities serve to answer those key questions.

Upon understanding the key business factors and key questions, lesson designers will then determine the language notions and functions for each lesson. Language notions and functions help the lesson designer focus on a narrower range of language usage that are important to achieve the job task objectives. For example, in Lesson 9: Safety Warning and On the Job Hazard (See Appendix T), the job task objectives are to ensure job safety and to warn others about a potential on the job hazard. The language notions involve cause, effect, and reasoning, whereas the language functions include language
that teach learners how to identify on-the-job hazards and how to warn others about a potentially dangerous situation. Because the ultimate goal of an EOP lesson is to help learners to acquire the language skills needed for the job, language notions and functions are important for identifying language skills pertaining to each key business factor.

The dual nature of the lesson objectives—job task and language objectives—are essential because they remind both the instructor and the learners how job task objectives inform language objectives, and how language objectives in return help realize the job task objectives.

Additionally, in her template, Ms. Lomperis also highlights the importance of listing the language skills (such as listening, speaking, reading and writing) and language systems (pronunciation, grammar, vocabulary, corporate culture note) that will be covered in the lesson. One of the most unique features of the template is the corporate culture note. The notes highlight the importance of educating learners about the corporate or business culture that might not be a common knowledge to everyone. For example, in Lesson 1: Reporting a Lab Accident’s Teacher’s Guide (see Appendix E), it is a unique corporate culture requirement that all near-miss incidents must be reported at XYZ institute, and it is also a common protocol in other elastomer-based companies. The protocol is necessary because there are many dangerous pieces of equipment in the workshop, and safety is a major concern in the industry. Therefore, corporate culture notes need to be included as a part of educating learners to be good elastomer technicians.
My Work in Semester Two

Teacher’s Guide. In semester two, I adapted Ms. Lomperis’ template and her ways of approaching each lesson, but with a few variations. One of the most important additions is the teacher’s guide I created to complement the learner’s copy of the lesson. This decision arose from a conversation between me and Ms. Lomperis concerning how to ease communication between the lesson designer and the instructors. Because I will not be teaching the lessons, it is important for me to communicate important and detailed instructional strategies and goals for the instructors through the teacher’s guide.

Instead of including all the job task objectives, language objectives, language skills and systems in the learner’s copy, I have decided to put the language skills and systems in the teacher’s guide only. Therefore, the teacher’s copy will have all the elements from Ms. Lomperis’ template, but the learner’s copy will only have the job tasks and language objectives. This is because I personally think that the language skills and systems would be more useful to the teachers than the learners. In the teacher’s guides from lesson 6 through lesson 10, I have also included the materials lists because these lessons have more hands-on activities that involve the usage of equipment and hand-tools in class. Therefore, a list of materials is included in the teacher’s guide when additional materials are needed.

One of the most important elements of the teacher’s guide that I have included is the instructional strategies—especially for task-based activities. For example, in an information-gap activity in Lesson 2: Reading Gauges (see Appendix G, Task D.2), I provided instructions for the activity as well as the pictures for the team leaders that are
not included in the learner’s copy—so that team members could engage in target language to elicit information from the team leaders. In the teacher’s guide for Lesson 5: My Work Space (see Appendix M), I have also included extra game ideas for practicing the existential phrases “there is” and “there are”.

In addition to instructional strategies, rationales are there to communicate the goal of certain activities. In the teacher’s guide for Lesson 1: Reporting a Lab Accident (see Appendix E), I have included a brief explanation of the activity I created in Task B.1 “What’s in a first-aid kit?” Without the rationale, the goal of the activity might be ambiguous to the instructor because the task involves one of the students using the target language to request for items in the first-aid kit, and the other student getting the items from the first-aid kit itself. The rationale behind this activity is that total physical response is a good method to engage students in learning—especially for kinesthetic learners who are able to remember information better through hands-on activities. Additionally, total physical response also simulates the authentic situation in which learners need to learn how to follow verbal instruction to retrieve items from the first-aid kit in case of an injury.

It is important to note that not all activities in the teacher’s guides are accompanied by rationales and instructional strategies because some activities such as multiple choice questions, matching activities, cloze passages, are generally understood by most educators. Therefore, I only provided extensive explanations for activities that require more instructions and guidance.
The overall lesson sequence. The overall lesson sequences were predetermined by the administrators and program coordinators of XYZ institute. Therefore, I have designed each lesson according to the pacing schedule given to me for semester two. However, in the Appendix, lessons are organized according to the order in which I have created them, rather than the order in which they were taught, so the thesis records the journey of my learning in the field of EOP chronologically. The first five lessons are a collaboration between the Elastomer English instructor from XYZ institute and me; the last five lessons are mainly my own independent work with consultations with elastomer experts, other technical content instructors, and Ms. Lomperis.

Individual sequence of activities. Each lesson begins with a warm-up activity that helps the learners to anticipate what will unfold in the lessons. Because I did not determine the lesson sequence, I do not always get the opportunity to include review of the preceding lesson’s content or language skill. In those cases, I include a warm-up activity instead of a review activity. However, if the lesson is connected with its preceding lesson, a review activity is normally used. For example, in Lesson 8: Measuring Density, students need to have prior knowledge of measuring dimensions and weight before they learn about measuring density. Therefore, in Lesson 8, I reviewed the contents in Lessons 6 and 7 before I introduced the concept of density in Lesson 8 (see Appendix R, Task B.1).

Following the warm-up/review activities, different activities are created based on the four language skills (listening, speaking, reading and writing). Because the goal of EOP is for ETTs to achieve communicative competence in a real-world work-related
context, many activities were designed with the consideration of the actual language used in an elastomer workshop. Activities were designed so that learners could maximize their input and output of target language in an authentic context. Reading and listening activities provide input materials, whereas speaking and writing activities help learners to produce output in the target language. Because according to our needs assessment, listening and speaking skills are more important to an elastomer technician than reading and writing skills, the EOP lessons in this thesis are more focused on the speaking and listening skills.

After different practices in various language skills, each lesson typically concludes with a few summative activities that provide closure for the lesson. Summative activities include grammar practice, vocabulary review or task-based activities that require learners to combine the skills learned from preceding activities to complete a task. For example, in a summative activity in Lesson 8: Measuring Density (see Appendix R, Task F.3), students are required to combine their knowledge of measuring density in the elastomer industry with the language functions involved (asking and answering questions) to complete a task.

**Characteristics of Elastomer English Lessons.** All EOP lessons in this project include authentic, elastomer-based input materials that are obtained from a variety of sources—including but not limited to elastomer experts, program coordinators, the internet, ESP textbooks, language consultants, curriculum designers—and many of the input materials are a result of a collaboration between the Elastomer English instructor at XYZ institute and me. For example, in the listening activity in Lesson 4: My Workspace
(see Appendix J, Task C.1), the workshop floor plans and images were created by one of the elastomer professionals from the University of Akron, Mr. Robert Seiple, and they accurately reflect the actual floor plans of XYZ institute, as well as the positions of the equipment. The inclusion of the actual floor plans shows that some parts of the lesson are incredibly customized for the ETTs to learn the actual language use in the industry, as well as the authentic materials that they will encounter in real-life situations. It is a time-consuming process to collect, filter, simplify, create and revise authentic materials that cater to learners’ needs. However, authentic, elastomer-based input materials are one of the most important features of an EOP lesson because they repeatedly expose learners to language use in real-world contexts.

In addition to authentic input materials, a task-based language approach was commonly used when designing the EOP lessons for this project. Richards et al. (1985) defined a task as “an activity or action which is carried out as the result of processing or understanding language” (p. 289). According to this definition, many task-based activities in the lessons require learners to understand the language and its conventional usage in order to complete the task. One example of such a task-based activity can be found in Task D.1 in Lesson 1: Reporting a Lab Accident in Appendix D.
D. READING COMPREHENSION
Task D.1
Below is a story of the injury of Mohamed. However, you only are able to hear part of the story.

Mohamed was working in the elastomer lab without his PPE. He was preparing the test sheet mold for the curing process. He wore his sandals to work that day... He reached out for the first-aid kit... He told himself he would never do that again.

Now, using yes/no or wh- questions, ask your instructor to provide details missing from the story. You can write your questions and answers in the following space. Remember to ask follow-up questions to get as many details about the accident and the injury as possible.

Example: Did Mohamed wear his personal protective equipment (PPE)?

1. Question: ____________________________________________
   Answer: ____________________________________________

2. Question: ____________________________________________
   Answer: ____________________________________________

3. Question: ____________________________________________
   Answer: ____________________________________________

Figure 2: Lesson 1: Reporting a Lab Accident (see Appendix D, Task D.1)

The language objective of Lesson 1 is to produce “wh- questions” and “yes/no questions”, whereas the job task objective is to report a lab accident. Students do not know the complete story of the injury in this task, and they need to ask questions in order to obtain the necessary information for a lab incident report—a task that mimics a real-life situation in which ETTs might have to ask questions to obtain information about an injury in order to fill out an incident report. Throughout the lessons, many such examples can be found in which learners have first to learn and familiarize themselves with the
conventions of language through a variety of pre-task activities before they engage in the actual problem-solving tasks that mimic real-life scenarios.

Another unique characteristic of the EOP lessons designed for this project is that many activities include elastomer-based examples in grammar practices instead of examples that revolve around daily life—a common feature of General English lessons. For example, in Lesson 3: Making Comparisons, students are required to use comparative and superlative language to compare and contrast different items. Instead of using a conventional General English sentence example such as “my house is bigger than your house”, we used elastomer-based examples such as “the heated press is bigger than the shore A hardness tester” for comparative language practice.

![Figure 3: Lesson 3 Making Comparisons (see Appendix H, Task C.1)](image)

Grammar instruction is a very significant part in TESL and, therefore, EOP. However, in the EOP lessons in this project, conventional English grammar rules are not always taught explicitly. Instead, learners are encouraged to discover the grammar rules through sentence examples in an elastomer context and then apply them in their own
language output. For instance, in Lesson 4: My Workplace (see Appendix J) students are required to underline the phrase “there is” or “there are” and draw an arrow the noun phrase to which these phrases are referring. After that, students have to discuss when each phrase is used, and they are supposed to come to the conclusion that “there is” is used before a singular noun phrase, whereas “there are” is used before a plural noun phrase. Upon learning the grammar rules, students will then apply them in a role-play where they would use the phrase “there is” or “there are” to give directions to different people in different scenarios that could potentially happen in real life. By discovering the grammar rules and immediately applying them in a scenario that imitates a real-life context, learners should understand that language forms and structure can be a useful resource for effective communication.

Overall, the EOP lessons in this project serve to help ETTs learn the conventions of the English language and, more importantly, to use English in various authentic, communicative situations in their job as elastomer technicians. In order to achieve that goal, a task-based language approach, implicit grammar instruction, authentic input materials, and elastomer-based examples are repeatedly used throughout the lessons.
CONCLUSION

Due to the inherently interdisciplinary nature of EOP, the ongoing needs analysis and collaboration between the language provider and the content-specific professionals are the two strong pillars of EOP lesson designing. The collaboration is important because either party operating without consulting the other would not result in an EOP lesson—it would either be a General English lesson with irrelevant content, or a content-based lesson with little to no language instruction. Therefore, communication and collaboration characterize EOP.

There are many ways to create effective communication and collaboration in EOP. I have learned that one of the ways is the ongoing exchange of knowledge between the language trainer and the content-specific professionals. Throughout the process of EOP lesson designing, I have learned that effective communication and collaboration is not just about asking questions but rather asking good questions—questions that connect context and language, questions that bring elastomer and English together. When I first started conducting needs assessments, I remember that I asked one of the elastomer professionals, “What is the authentic language use in the lab and outside the lab that is relevant to a trainee's/technician's job in the lab?” The elastomer professional simply replied, “In the lab—English, outside of the lab—likely Arabic.” The answer that came out of this question was definitely not what I had expected. I had wrongly assumed that the elastomer professional would understand the linguistic jargon “authentic”.
My experience in EOP lesson design makes me realize that I cannot assume that people who are involved in the design process have similar applied linguistic training. Therefore, in order to identify the language functions, notions, and communicative situations in various job tasks, questions must be formulated to be understood by non-linguists—people who do not normally pay explicit attention to the role language plays in daily communicative situations. Therefore, in the subsequent conversations between me and the elastomer professionals, I have learned to ask more straightforward questions such as “can you give me sample lab reports?”, and “can you write me a common dialogue between elastomer technicians in such and such situations?” As a result, these questions yielded a more satisfactory response.

Similarly, content-specific professionals will have to educate language trainers in the nuances and technical aspects of the industry that might not be general knowledge to outsiders. As a result, an effective EOP lesson design requires language trainers and content-specific professionals to be equally interested in learning about a discipline that might not be their forte and to be willing and able to educate each other about their professions. In this thesis project, I have been fortunate to work with elastomer professionals who were willing to teach me about the fundamentals of their industry and willing to learn about elements of language training and designing. Each lesson was sent back and forth between different stakeholders to make sure that it reflected the authenticity of the language use, the accuracy of the technical content, and the application of sound pedagogy. Therefore, this EOP thesis project would not have been possible without the vital knowledge that stakeholders contributed.
REFERENCES


